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# Population Reports

# AIDS Education— A Beginning

**Against AIDS, education is the only vaccine. As the epidemic of acquired immune deficiency syndrome spreads, many are turning these words into action.**

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Nearly everywhere that AIDS has been found, AIDS education programs are underway. Most governments are using broadcast and print mass media to reach the general population. Local groups, often growing out of community efforts to deal with AIDS, are using primarily print media and personal contact to reach community members, especially those whose behavior puts them at high risk of infection. Often these groups also help people with AIDS and their families. Both mass media and community approaches are crucial.

Different programs have emphasized different messages. For example, to discourage sexual transmission, some national campaigns in Europe emphasize consistent use of condoms, while many African campaigns stress keeping to one sexual partner. More cautiously, some countries, such as the US, began by urging people to seek more information and only recently have provided specific advice about avoiding infection. Many campaigns also fight unjust discrimination against people with AIDS or infected with the AIDS virus. Privately organized programs for specific audiences usually have been more direct than government programs for the general public.

### What Must These Programs Do?

AIDS education faces the formidable challenge of changing behavior—an incremental process that entails providing information, teaching new skills, eliciting emotional commit-

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ment, creating social support for safer behavior, and providing services and supplies. Furthermore, because of the nature of AIDS, AIDS education programs face even greater obstacles than other health education programs. Patterns of sexual behavior and intravenous drug use—through which the AIDS virus is transmitted—are deeply rooted and not easily altered. And programs trying to influence sex or drug use nearly always arouse controversy—which either can get everyone talking about AIDS prevention or else can obstruct rational and comprehensive AIDS prevention efforts. Family planning programs, experienced both with promoting changes in sexual behavior and with handling controversy, have many lessons to offer for AIDS prevention.

In practical terms, what can AIDS education programs hope to accomplish? Depending on the audience, possible objectives include:

- More discussion about AIDS between sexual partners or within families,
- More sales or use of condoms,
- More monogamy, more sexual abstinence, or fewer sexual partners,
- Less needle sharing,
- A later start to sexual relations among young people,
- A shift to safer sex, including nonpenetrative sexual practices as well as condom use,
- Decreases in rates of other sexually transmitted diseases, and, ultimately,
- Lower prevalence of the AIDS virus.

## Are These Programs Working?

AIDS programs are just beginning, and it is too soon to tell how well most of them are working. Most mass media programs for the general public have succeeded in informing people about AIDS. It is not yet clear, however, how much these programs influence behavior. Some people at high risk report shifting to safer behavior—using condoms more, having fewer sexual partners, or sharing hypodermic needles less—and education programs may be partly responsible. Because there is no time to waste, careful evaluation should be planned into all programs. Lessons should be passed on.

What offers the best chance of success? It is tempting to try whatever can be done fast. Success is best assured, however, when communication and education are carried out continuously, based on long-range strategies; when the intended audience is involved in planning, testing, and even dissemination; when messages are designed based on market research and are tested, revised, and retested; when materials go where their audiences are; and when impact is carefully evaluated. The process is not simple, quick, cheap, or guaranteed. For the foreseeable future, however, this systematic approach to public education offers the best hope against AIDS.

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# The Extent of the Epidemic

At least through the turn of the century, acquired immune deficiency syndrome (AIDS) will kill more and more people each year. Perhaps half a million people now have AIDS or have already died of it (475). But far more—as many as 10 million—may be infected with the AIDS-causing human immunodeficiency virus (HIV) but have not yet developed AIDS (256). No one is known to have recovered from HIV infection. Thus, even if the spread of infection stopped today, more and more deaths would occur for years to come. But HIV infection has not stopped spreading. In most places infection rates are rising. In all, at least five million new AIDS cases are expected in the 1990s (478).

No one knows exactly how many people have developed AIDS. Between 1981, when AIDS was identified, and July 1989, about 170,000 cases were reported to the World Health Organization (WHO) by 149 countries (475). This is roughly one-third of the number thought to have actually occurred.

No one knows just how many people are infected with HIV, either. The prevalence of infection is estimated from blood tests performed on nonrandom samples of people in limited areas. Figures from these tests are difficult to extrapolate to entire countries.

Numbers of HIV infections and AIDS cases vary widely from one place to another. Prevalence and the characteristics of those infected depend on which of several modes of transmission dominates (see pp. 5–7). To date, 75 percent of cases reported worldwide have occurred in urban areas of North America and Western Europe (484). The rapidly rising prevalence of HIV infection in parts of Africa and Latin America, however, suggests that eventually the AIDS epidemic may hit these areas even harder.

■

## North America and Europe

In North America and Western Europe HIV infection and AIDS cases have been concentrated among men who have sex with men and among users of intravenous drugs. In some US cities up to half of homosexual and bisexual men are infected (440) (see Table 1, p. 4). In the population as a whole, however, infection is uncommon—0.12 percent among US military recruits in 1988, for example (442).

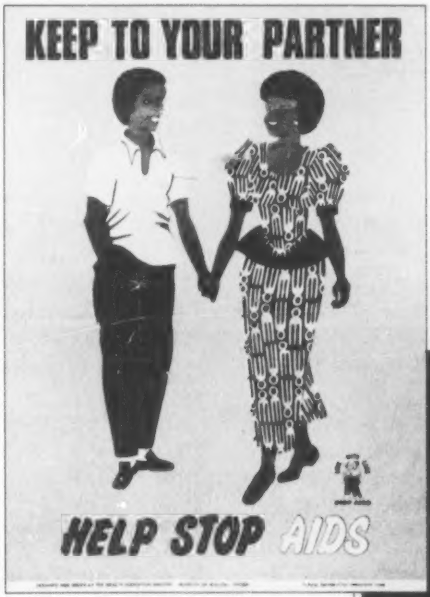
The US accounts for 60 percent of the world's reported AIDS cases, with over 105,000 reported through mid-1989 (438). The US Centers for Disease Control estimate that as of 1988 between 1.0 and 1.5 million US residents were infected with HIV. About 50,000 new cases of AIDS are expected in 1989. By 1992 the annual number of new cases is expected to rise to 70,000, and the cumulative case load will top 365,000 (168).

Despite rapid growth in the *number* of AIDS cases in the US, the yearly *rate of increase* is slowing (168). This is largely the delayed result of safer sexual practices adopted among homosexual men. The percentage of AIDS cases involving homosexual men is decreasing and the percentage among intravenous drug users is increasing (484).

The distribution of AIDS cases in Western Europe and Canada resembles that in the US, but the numbers are smaller. As of September 1989 over 25,000 cases had been reported in Europe, and about 3,000 in Canada (496). France has the highest case load—over 7,100 cases, or more than 25 percent of the European total. The pattern of cases varies markedly in different European regions. In northern Europe infection is most common among homosexual men; in southern Europe, among intravenous drug users (256). Eastern Europe has reported few cases.

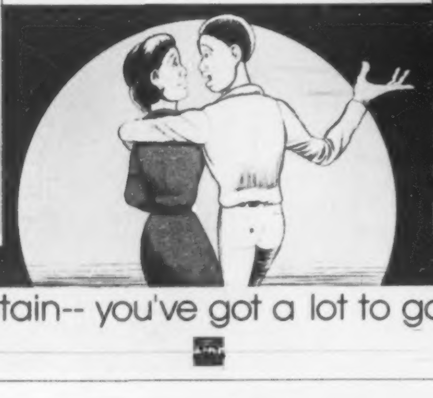
*Stopping Sexual Transmission of HIV*

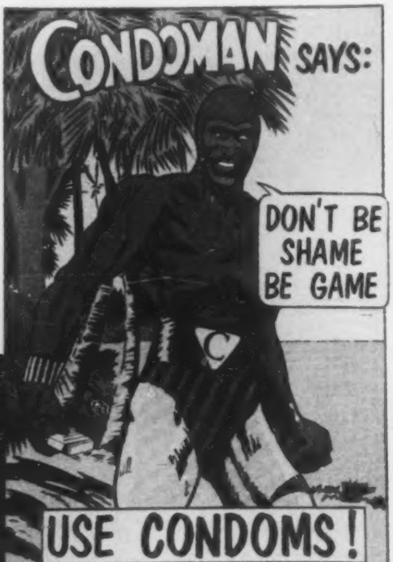
*Three Messages— Three Choices*



*Ghana*

*United States*


Abstain-- you've got a lot to gain.



*Australia*

Table 1

## Trends in Prevalence of Infection with Human Immunodeficiency Virus, 1976–1989, Selected Studies

| Place & Date (Ref. No.) | Population | Year Tested | Sample Size | % Infected[a] |
|---|---|---|---|---|
| ***AFRICA*** | | | | |
| ***Cameroon 1988*** (488) | Prostitutes, patients at STD clinic, prisoners | 1986 | 242 | 0 |
| | | 1987 | 88 | 6 |
| | Healthy adults in 4 cities | 1986 | 150 | 0 |
| | | 1987 | 370 | 0 |
| ***Côte d'Ivoire 1989*** (304) | Randomly selected healthy adults in suburban and rural areas | 1985 | 794 | 1.6[b] |
| | | 1987 | 1126 | 2.6[b] |
| ***Kenya 1987*** (318) | Female prostitutes at a Nairobi research clinic | 1981 | 116 | 4 |
| | | 1984 | 76 | 59 |
| | | 1985 | 286 | 61 |
| ***Malawi 1988*** (55) | Pregnant women at urban prenatal clinics | 1985 | 200 | 2 |
| | | 1987 | 399 | 9.5 |
| ***Malawi 1988*** (293) | Pregnant women at prenatal clinics in 4 towns | 1986 | 96 | 4.2 |
| | | 1987 | 290 | 6.5 |
| ***Senegal 1988*** (251) | Patients at an STD clinic in Dakar | 1985-86 | 141 | 2.1 |
| | | 1988 | 263 | 3.4 |
| ***Tanzania 1988*** (271) | Dar Es Salaam female restaurant and bar workers | 1986 | 224 | 29 |
| | | 1988 | 222 | 39 |
| | Dar Es Salaam male restaurant and bar workers | 1986 | 50 | 8 |
| | | 1988 | 181 | 5.5 |
| ***Uganda 1988*** (86) | Outpatients and healthy adults at a rural health clinic | 1983 | 58 | 0 |
| | | 1984 | 111 | 1 |
| | | 1986 | 441 | 14 |
| ***Zaire 1988*** (295) | Stored blood samples from healthy adults in several rural villages | 1976 | 659 | 0.8 |
| | Randomly selected healthy adults in same villages | 1986 | 388 | 0.8 |
| | Sexually active single women (including prostitutes) in same villages | 1986 | 283 | 11.3 |
| | Pregnant women in same villages | 1986 | 136 | 2.2 |
| ***Zaire 1988*** (283) | Employees in a Kinshasa hospital | 1984 | 2385 | 6.4 |
| | | 1986 | 2193 | 8.7 |
| ***LATIN AMERICA & CARIBBEAN*** | | | | |
| ***Argentina 1989*** (116) | Blood donors in Buenos Aires | 1986 | 1651 | 0.18 |
| | | 1987 | 10,844 | 0.07 |
| | | 1988 | 15,508 | 0.25 |
| ***LATIN AMERICA & CARIBBEAN (Continued)*** | | | | |
| ***Colombia 1989*** (31) | Volunteer blood donors in cities | 1985 | 804 | 0 |
| | | 1986 | 809 | 0 |
| | | 1987 | 38,077 | 0.08 |
| ***Haiti 1989*** (32) | Pregnant women at a prenatal clinic in a periurban slum | 1986 | 1245 | 9 |
| | | 1987 | 2009 | 10 |
| | | 1988 | 1074 | 15 |
| ***Martinique 1988*** (57) | STD clinic outpatients | 1986 | 1103 | 4.2 |
| | | 1987 | 1207 | 4.8 |
| | | 1988 | 1125 | 3.5 |
| | Healthy adults | 1986 | 2503 | 0.3 |
| | | 1987 | 2778 | 0.5 |
| | | 1988 | 2864 | 0.7 |
| ***Mexico 1989*** (454) | Homosexual men in Guadalajara | 1986 | 226 | 29 |
| | | 1987 | 238 | 30 |
| | | 1988 | 325 | 30 |
| ***ASIA*** | | | | |
| ***India 1988*** (186) | Men at STD clinics in New Delhi | 1986 | 3000 | <0.1 |
| | | 1987 | 7212 | 0.2 |
| | | 1988 | 5967 | 0.9 |
| ***Thailand 1989*** (418) | IV drug users in drug treatment in Bangkok | 3/88 | 877 | 11 |
| | | 9/88 | 807 | 31 |
| ***NORTH AMERICA & EUROPE*** | | | | |
| ***Italy 1987*** (422) | IV drug users in drug treatment program in Milan | 1982 | 72 | 20 |
| | | 1983 | 218 | 61 |
| | | 1986 | 37 | 73 |
| ***UK 1989*** (248) | Homosexual and bisexual men at a London STD clinic | 1982 | 107 | 4 |
| | | 1986 | 348 | 25 |
| | | 1987 | 250 | 26 |
| ***US 1989*** (94) | IV drug users in drug treatment in New York City. Excludes those with AIDS-like symptoms. | 1979 | 50 | 26 |
| | | 1984 | 200 | 56 |
| | | 1987 | 294 | 57 |
| ***US 1989*** (166) | Homosexual and bisexual men in a San Francisco hepatitis B vaccine trial. Follows same 313 men for 10 years. | 1978 | 313 | <1 |
| | | 1981 | 313 | 28 |
| | | 1983 | 313 | 47 |
| | | 1988 | 313 | 51 |

IV = Intravenous
STD = Sexually transmitted disease

[a] All blood samples positive on ELISA test and either Western Blot or immunofluorescence assay.

[b] Includes HIV-2

## Africa

In many areas of sub-Saharan Africa the prevalence of HIV infection is high, and men and women are equally affected. An estimated two to three million Africans are infected with HIV, mostly in urban areas of Burundi, the Central African Republic, Côte d'Ivoire, Guinea-Bissau, Malawi, Rwanda, Tanzania, Uganda, Zaire, and Zambia. The national prevalence in these countries is estimated at about 2 to 4.5 percent of the entire population (477). Studies of selected populations in some cities of Central and East Africa have found prevalence as high as 30 percent, however (25, 216) (see Table 1).

About 25,000 AIDS cases had been reported in sub-Saharan Africa as of mid-1989, about 16 percent of the world's total. An estimated 90 percent of African AIDS cases are not reported, however (255).

In some African cities the prevalence of HIV infection is rising rapidly in groups such as pregnant women and blood donors that have not been considered at particularly high risk. Among populations at high risk—those who have many sexual partners, such as prostitutes and their clients—infection rates are rising even faster (see Table 1).

While infection rates in rural Africa are generally lower than those in cities, in some areas the epidemic has reached the countryside. For example, in 1983 HIV infection was virtually absent in the rural East Acholi district of northern Uganda. By 1986, 14 percent of health center outpatients and 13 percent of otherwise healthy people were infected (86).

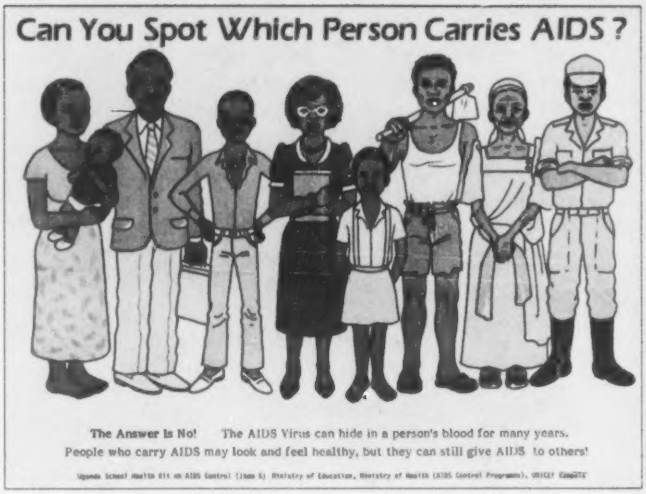
HIV-2, a strain of HIV that is less widespread and perhaps less virulent than the first-identified AIDS virus, HIV-1, is common only in Western Africa. In Bissau, Guinea-Bissau, 4.7 percent of over 1,300 household members tested at randomly selected homes in 1987 were infected with HIV-2, while none was infected with HIV-1 (334).

By the early 1990s AIDS is likely to double or triple the total adult mortality in urban areas of East and Central Africa. Already, AIDS patients fill one-quarter to one-half of beds in some hospitals in Central Africa (256). Child mortality is expected to increase by at least 25 percent, wiping out the hard-won gains of child survival programs.

## Latin America and the Caribbean

As in North America and Europe, HIV infection and AIDS cases in Latin America and the Caribbean were at first concentrated among urban men who have sex with men. Now, in the Caribbean and to a lesser extent in Latin America, the epidemic is changing. Infection rates are increasing faster among heterosexuals than among homosexual men (57, 311). In the Caribbean heterosexuals now account for 60 percent of the 1,200 reported cases (284).

HIV infection may be spreading to heterosexual populations in the region largely through bisexual men. In São Paulo and Rio de Janeiro, for example, 28 percent of bisexual men tested in a 1987 survey were infected with HIV (74). The shift is also due to rising infection rates among intravenous drug users (20, 34, 115, 116). For instance, among women who came to a Buenos Aires hospital for HIV testing, 89 percent of those infected reported sharing needles for drug use (20).


Can You Spot Which Person Carries AIDS ?
The Answer Is No! The AIDS Virus can hide in a person's blood for many years.
People who carry AIDS may look and feel healthy, but they can still give AIDS to others!
Uganda School Health Kit on AIDS Control (Item 5) Ministry of Education, Ministry of Health (AIDS Control Programme), UNICEF Kampala

*A poster from the Ugandan School Health Kit on AIDS points out that the long interval from infection to symptoms means that a person carrying HIV cannot be identified by his or her appearance.*

Rates of infection are high among prostitutes—both male and female—in many Latin American and Caribbean cities. Recent surveys report that over one-third of female prostitutes in Port-au-Prince, Haiti, and of male prostitutes in Buenos Aires and Rio de Janeiro are infected (73, 108, 280).

## Asia

Except for a few cities Asia is almost free of AIDS at this time. As of mid-1989 just 369 cases had been reported (255). WHO estimates that fewer than 100,000 Asians are infected with HIV.

A notable exception is Bangkok, where HIV prevalence among intravenous drug users—most of whom are adolescent males—is rising sharply. In late 1987 about one percent of people attending drug abuse treatment centers in Bangkok were infected with HIV. By March 1988, 11 percent were infected, and by September 1988, 31 percent (54, 418).

HIV infection in cities in India, while still rare by Western standards, is becoming more common. Among men at STD clinics in New Delhi, for example, 0.24 percent were infected in late 1987. One year later 0.89 percent were infected (see Table 1). Over the same period prevalence among urban blood donors rose from 0.02 percent to 0.29 percent (186).

# How Is the Virus Spread?

The human immunodeficiency virus (HIV), which causes AIDS, is most often transmitted during:

- Sexual intercourse,
- Needle-sharing for intravenous drug use,
- Pregnancy, from mother to fetus, and
- Transfusion of blood and blood products.

The virus is transmitted in these ways in semen, cervical and vaginal fluids, and blood. In an infected person HIV-infected cells are found in high concentrations only in these fluids and in cerebrospinal fluid. Other fluids, such as tears, saliva, and sweat, contain few HIV-infected cells and therefore very rarely account for transmission.

HIV is not spread through casual contact such as handshakes and hugs. Neither is it transmitted through the sneezes or coughs of an infected person or through sharing food and cooking utensils.

■

## Sexual Transmission

The chances of becoming infected through sex with an infected person increase with:

- The number of sexual partners, because of the greater probability of sexual intercourse with an infected person, and
- The number of acts of intercourse with an infected person. In some instances sexual partners of infected individuals have remained uninfected despite unprotected sex over several years. In other instances, however, transmission has occurred with just one or two sexual acts (111, 199, 308).

A third factor appears to be the infectiousness of an infected person and the susceptibility of an uninfected person. What influences infectiousness and susceptibility? Most important are:

- Concurrent infection with other sexually transmitted diseases (STDs), particularly genital ulcer disease,
- The type of sexual practices, specifically whether they cause trauma to the genitals, and
- Concentration of HIV-infected cells in the body.

**STDs**. Sexually transmitted diseases—specifically genital ulcer disease such as chancroid, syphilis, and genital herpes—can increase the chances of HIV transmission through intercourse by as much as sevenfold (45, 178, 341, 393, 404, 465). STDs can cause genital sores, which provide an exit point for blood and an entry point for blood, semen, and cervical and vaginal fluids. In a Nairobi study of men who contracted STDs, 28 percent of men with genital ulcers were infected with HIV as opposed to 7 percent without (42). Because the ulcers can occur anywhere in the genital area, a condom is not always protective.

STDs also raise the number of white blood cells in the genital tract. Because HIV infects these cells, their high number increases the risk of transmission (315).

**Sexual practices.** Although all types of sexual intercourse can transmit HIV, some practices are riskier than others. Intercourse without a condom (unprotected intercourse) and which causes trauma or bleeding is most likely to transmit HIV. Unprotected receptive anal intercourse is riskiest, probably because during anal sex the rectal lining often tears slightly, exposing blood vessels to infected cells in semen (111). Similar tears occur—although less often—in the vagina and cervix during vaginal intercourse.

Sexual practices without exposure to semen, vaginal and cervical fluids, or blood—such as using condoms, masturbation, fondling, and kissing—do not transmit HIV and have been dubbed "safer sex" (see box, this page).

**Concentration of infected cells.** The relatively high concentration of infected cells in patients in the later stages of infection may increase the risk of transmitting HIV (12, 145, 230). Also, HIV concentrations are high just after initial infection, before the immune system produces antibodies (9).

**Other factors.** According to a report from a Nairobi STD clinic, uncircumcised men were 2.7 times more likely to be infected with HIV than circumcised men (393). Also, one study suggested that women using oral contraceptives were more susceptible to HIV infection (324, 327). Several later studies have failed to confirm this finding, however (46, 80, 88, 145, 175, 229) (see **Population Reports**, *Lower-Dose Pills*, A-7, November 1988).

■

## Injections

When needles or syringes are reused without adequate sterilization, contaminated blood can pass from one person to another. Drug users often share injection equipment. HIV transmission by this route is common among drug users in urban areas of the US, Western Europe, Argentina, Brazil, and Thailand (92, 415, 422).

In medical settings, contaminated needles, syringes, or other medical instruments have not been a major route of HIV transmission to patients or health care providers (240). Health care providers can protect themselves and their patients by using standard sterile procedures. In a children's hospital in the Soviet city of Elista, 41 infants became

## What is "Safer Sex?"

**Safer sex is any sexual practice that reduces the risk of passing HIV from one person to another.**

The best protection is to choose sexual activities that **do not** allow semen, vaginal fluid, or blood (including menstrual blood) to enter the mouth, anus, or vagina or to touch the skin where there is an open cut or sore. These fluids can carry HIV.

Some people choose to abstain from sex. For those who want to continue sexual activity, specific safer sex practices include:

- A mutually faithful relationship between two uninfected partners;
- Using a condom for all types of intercourse—vaginal, anal, and oral;
- Nonpenetrative sex practices such as hugging, kissing, rubbing, and masturbating;
- Reducing the number of sexual partners;
- Avoiding sex when you have open sores or any sexually transmitted disease (STD);
- Avoiding sex with partners who have open sores or STDs.

While some practices are obviously safer than others, more people will change their behavior if they have a range of choices and can choose the approach that suits them best.

infected because hospital staff did not sterilize syringes and needles between injections (328).

■

### Pregnancy

One-quarter to one-half of babies born to HIV-infected women are infected themselves (29, 76, 110, 172, 192, 378). It is not known why this range is so wide. One factor may be how long the mother has been infected. Women with high levels of HIV—usually in the initial or late stages of infection—appear to be more likely to transmit the virus to their babies (12).

Most perinatal HIV transmission is thought to occur during pregnancy, when the virus crosses the placenta into fetal circulation. HIV may also be transmitted during childbirth, when the baby comes into contact with the mother's blood and cervical secretions. There is no evidence, however, that cesarean section prevents HIV transmission (200, 272).

It is possible for babies to become infected through their mothers' breast milk, although this is thought to be rare (66, 241). In Lusaka, Zambia, however, HIV infection was found in 18 percent of breastfeeding babies whose mothers are thought to have acquired HIV infection after giving birth (173). More research is needed to confirm this finding, however. Where health services are not readily available or where diarrheal diseases are common, the danger to the infant of discontinuing breastfeeding far outweighs the possibility of HIV infection from breastfeeding (191, 431, 485).

■

### Transfusions

HIV-contaminated blood supplies spread the virus very efficiently. Fortunately, by discouraging high-risk individuals from donating blood, testing blood for HIV antibodies, limiting blood transfusions to critical situations, and inactivating HIV in blood products, many countries have made their blood supplies much safer (379). Since antibodies do not develop for two weeks to six months after infection with HIV, however, antibody screening does not detect all contaminated blood. Thus transfusions with screened blood now pose a very small risk—estimated at one in 40,000 in the US, for example (440). Many countries in Africa and Latin America do not have the resources to screen all donated blood, however, and blood transfusions remain a source of infection in these areas.

Because specific behavior transmits HIV, specific changes in behavior can stop its transmission. Currently, most AIDS prevention efforts focus on changing risky behavior through education and persuasion. A technological alternative is lacking. Despite extensive research, a vaccine against HIV is still years away. Azidothymidine (AZT), the only effective treatment for HIV infection, is often dangerously toxic, is so expensive that few can afford it, and in any case is not a cure. Only one route of transmission—through the blood supply—can be blocked by largely technological means—the screening of donated blood.

Changing people's behavior on a broad scale is not easy. In the face of a rapidly spreading, fatal disease, it requires rapid mobilization of resources, careful planning, and political consensus. But lack of funds, manpower, and management skills has been a major problem, and political controversy over education programs has stalled action. At this point, the only approach to AIDS education that has been widely accepted is providing information to the entire population. Still, the extent and vigor of these efforts varies greatly.

## Mass Media Programs for the General Public

Mass media information and education programs for the general public are often the first step in national AIDS prevention efforts. In virtually every country where AIDS has been reported, the national government has undertaken some effort to make people aware of AIDS. The extent and timing of such efforts, the choice of media, and the content, style, and tone of messages have varied widely. Experience shows that mass media education programs can teach the public about AIDS. It is less clear how much they contribute to changing high-risk behavior.

Many early programs for the general public began in a hurry. Thus they often skipped preliminary research, careful planning, and plans for evaluation.

The second generation of programs for the general public has benefited from more time to research, plan, and pre-test. In addition, a number of programs, including ongoing programs in Peru and the United Kingdom and the upcoming program in the Philippines, work with policy-makers, the news media, and health professionals. This helps to ensure more accurate press coverage and more services to meet the demand generated by communication programs.

Mass media news coverage is usually the way people first learn of AIDS. Coverage has ranged from massive to censored and from sensational to scientific (322, 356). The illness and death of US actor Rock Hudson in 1985 first put AIDS on the front pages of newspapers around the world. But the often sensational coverage gave many the false impression that only homosexual men could get AIDS. Scientific reports on AIDS research and statements by national leaders also are increasingly publicized. In the US, extensive news coverage of the 1986 report on AIDS by Surgeon General C. Everett Koop stressed the risks of heterosexual intercourse and the preventive benefits of condoms. This coverage may have contributed to a sudden surge in condom sales beginning in early 1987 (277) and helped make the word "condom" usable in public discussion.

In some countries mass media entertainment also has dealt with AIDS—sometimes accurately, sometimes not. US television dramas, taken together, have presented a somewhat distorted view of AIDS and have seldom provided specific guidelines for avoiding AIDS (310).

Given the enormous power of the mass media to influence public attitudes, it is essential that AIDS program planners work closely with print and broadcast journalists and entertainment producers. While social constraints will always influence mass media treatment of issues involving sexual behavior, the media will be better able to provide accurate information, to correct misunderstandings, and to publicize prevention practices if they have more help from health professionals.

## Health Behavior: What Makes People Change?

Preventing the spread of AIDS depends on influencing people to change their behavior—a difficult task in any case but made more difficult by the nature of HIV infection: the behavior to be changed is sexual; the actions sought are preventive; risky behavior sometimes but not always leads to disease transmission; and adverse effects become apparent only many years after exposure.

In recent decades much effort has been devoted to analyzing behavior change and assessing the implications for health promotion campaigns (358). One review notes that "there are at least 16 popular guiding-idea theories about human nature" that would shape an approach to health promotion (267, 268). A simplified framework consists of five elements of personal behavior and its social context relevant to health education:

(1) **The rational element, based on knowledge.** People need to know (a) what the disease is; (b) how it is and is not transmitted; (c) how likely they are to become infected; and (d) what they can do to avoid infection.

(2) **The emotional element, based on the intensity of attitudes or feelings.** People need to feel an intense and personal vulnerability to the disease, an emotional commitment to the behavior needed to avoid it, a compassion for those already affected, and a concern to protect others they love from contracting it. Emotions may be negative, based on fear or anger, or positive, based on love or hope for reward.

(3) **The practical element, based on personal skill in the new behavior.** People need to be competent and confident in practicing the new behavior, whether it is use of condoms, avoidance of multiple sexual partners, or changes in sexual practices or drug use.

(4) **The interpersonal element, or social networks.** People need to associate with and be supported by others—in the family, peer groups, villages, workers' associations, or special meetings—whose knowledge, emotions, and skills reinforce healthful changes.

(5) **The structural element, or social, economic, legal, and technological context in which behavior takes place.** People need to have access to the necessary supplies and services (such as condoms and blood testing) and to live in an environment where safer behavior is made easy, accepted, and even routine, while risky behavior is made difficult.

■

### Goals and Obstacles for Mass Media Programs

Most AIDS education programs for general audiences have similar goals:

- To provide essential information,
- To encourage people to recognize and change behavior likely to spread infection,
- To maintain healthy behavior,
- To quiet groundless anxiety about transmission via casual contact,
- To prevent discrimination against those infected with HIV, and
- To mobilize public support for AIDS education and prevention programs (202, 239, 297, 337, 395, 430).

Achieving these goals is not easy. Difficulties include:

- Developing messages for diverse audiences,
- Developing messages acceptable in the face of political, social, or religious opposition, and
- Cost.

**Diversity.** The general public, by definition, encompasses people of diverse educational, economic, ethnic, and social backgrounds, often speaking different languages and at different levels of risk for HIV infection. Education programs, however, are most effective when designed specifically for well-defined audiences. Thus in broad campaigns the challenge is to develop messages that are attractive to many, understood by all, and yet personally relevant and persuasive to different people. To achieve greater impact, some national programs have focused on specific groups as well as the general public. For example, in 1988 the third phase of the British mass media campaign was designed to appeal to young people. Many more young people called telephone hotlines for information than during the first campaign, and many more remembered the ads and campaign slogan (427).

**Acceptability**. Government information programs for the general public are necessarily highly visible and so must be widely acceptable. In some areas fear of objections have prevented open discussion of sexual practices, use of explicit language, and particularly condom promotion. In New York City, for example, with over 20 percent of AIDS cases in the US, the major television networks refuse to broadcast condom ads during prime time (345). Working directly with groups that might object can sometimes defuse potential controversies. In Peru, Proyecto SIDA of the Ministry of Health Special Program on the Prevention of AIDS consulted representatives of the Catholic Church and reached a compromise to promote condoms for AIDS prevention and encourage marital fidelity at the same time.

**Cost**. Reaching most of the public with an educational campaign is expensive relative to other public health expenditures. In Australia 97 percent of the population saw AIDS messages during the 1987 television campaign. Even though many television stations did not charge for air time, the campaign cost $3.4 million (US) (148). During the second media campaign in the UK, just over 90 percent of all adults saw at least one television ad (428, 430), but the campaign cost £3 million (US$6.1 million). To limit costs, the UK AIDS program is now focusing on press advertising (212). Even if television is little used, the cost of printing large quantities of material and developing radio spots is beyond the resources of many programs.

## National Programs

Programs use various mass media to reach the general public. Developed countries have relied heavily on television and major newspapers and magazines because these reach the largest audiences. France, Poland, Sweden, Switzerland, the UK, the US, and West Germany also have mailed informational brochures to most or all households. Developing countries have emphasized radio and various print materials—brochures, leaflets, and posters.

The messages also vary. While promotion of monogomy or at least limiting the number of sexual partners is universal, emphasis on condoms differs greatly. Some countries, such as Sweden, Switzerland, and the Netherlands, promote condoms with public advertising, open discussion in the mass media, and extensive distribution at bars, airports, resort areas, and schools as well as at health centers. In contrast, at least six countries in sub-Saharan Africa and four in southeast Asia have not promoted condoms at all (415). Not surprisingly, fewer than one-fourth of adults surveyed in some of these countries recognized that condoms block transmission of HIV, and condom use, whether for family planning or AIDS prevention, is rare (2, 22, 23, 30, 219 225, 382, 389). Midway between these two extremes, some countries, such as the US, cautiously endorse condoms, but only as less effective than fidelity and/or abstinence.

Messages vary in tone as well as content. Early efforts often either provided information in a straight-forward, rational manner or else evoked strong negative emotions, particularly fear.

Now efforts are broadening in both approach and media used. More AIDS education campaigns evoke positive emotions such as humor or the sense of personal well-being that comes from making healthy choices. Also, attention is turning to approaches that blend education and entertainment to make information more appealing and persuasive. For example, in Côte d'Ivoire, Ghana, Tanzania, Trinidad and Tobago, Uganda, Zambia, and Zimbabwe, traditional folk theater troupes are performing plays about AIDS. In Kinshasa, Zaire, 15-minute cassettes of popular music and AIDS prevention messages were played on 30 public buses, reaching an estimated 234,000 passengers in four weeks. Over 60 percent of 240 passengers surveyed remembered the AIDS messages (282). In South Africa and Thailand similar tapes play in taxis (383, 455). In the Philippines a popular television soap opera aired an episode portraying the consequences for a businessman and his wife after he acquired HIV infection from a prostitute. The number of visits to sexually transmitted disease clinics in Manila doubled during the week after the broadcast (84). More campaigns now emphasize condom use and how to convince sexual partners to use condoms or other safer sexual practices. Condom social marketing, already underway in roughly two dozen countries elsewhere, is beginning in a number of African countries.

If programs for the general public are well-designed and carried out on a large enough scale, they can reach most of the population and may motivate some to adopt safer behavior. For the greatest impact, however, mass media campaigns must be combined with locally organized interpersonal and group approaches. Campaigns in Switzerland, Uganda, Zaire, and Mexico illustrate the strengths and weaknesses of general campaigns.

## Switzerland

Collaboration between public and private organizations and all-out condom promotion characterize the Swiss AIDS education campaigns. The Federal Office of Public Health and the private Swiss AIDS Foundation, an organization started by homosexual men, worked with marketing professionals to design comprehensive programs for the general public and for specific audiences (239, 407). The program began in 1986 with brochures mailed to every household. Surveys showed high levels of knowledge about AIDS before the mailing and some increase afterwards (239). As a result, the planners decided to focus simply and directly on prevention (224). In 1987 condom promotion began. The signs "STOP AIDS" and "STOP SIDA," with a picture of a rolled-up condom replacing the "O" in "STOP," became the campaign logo, familiar throughout the country (see photo, this page). Many channels conveyed the condom message. Condom ads were broadcast on radio and television, and a song about condoms became a hit. Posters, billboards, magazines, special brochures, tote bags, t-shirts, and other products carry the STOP AIDS logo or other depictions of condoms (259). More prevention messages were added later, intended for more specific audiences: "Stay faithful to one partner," aimed at married couples; "One hit is all it takes," aimed at drug users; and "Safety for the two of you," aimed at homosexual men.

The emphasis on prevention has paid off. By the end of 1987 condom sales had increased by 60 percent over 1986 sales (105, 163, 164). Surveys before and after the the first campaign among 17- to 30-year old men and women having casual sexual relationships found that the percentage reporting consistent condom use tripled (106):

### Condom Use Among 17–30 Year Olds with Multiple Sexual Partners Before and After Swiss AIDS Education Campaigns

| | Before | During | |
|---|---|---|---|
| | Jan. 1987 | Oct. 1987 | Oct. 1988 |
| Always use condoms | 8 | 17 | 29 |
| Sometimes use condoms | 25 | 45 | 58 |
| Never use condoms | 67 | 38 | 13 |

Sources: Dubois-Arbor 1989 (106), Zeugin et al. 1989 (490)

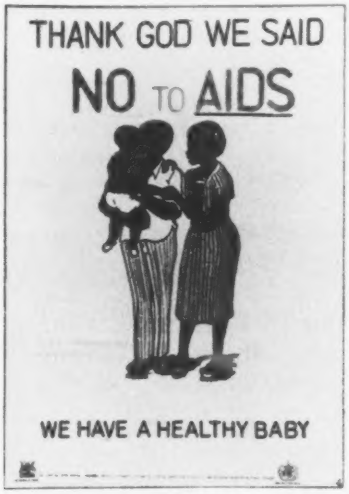
*Imaginative and humorous condom promotion characterizes the Swiss AIDS prevention campaign. In this poster a rolled-up condom, symbol of the campaign, shines like the moon over Geneva.*

## Uganda

In many developing countries educating the public presents especially formidable challenges. Funds and trained personnel are often limited. Many people do not have access to radio or television. Health infrastructures are not developed. Distribution networks are limited. Many languages are spoken, and many people cannot read.

Started in 1986, the Uganda AIDS Control Program was one of the first national programs in Africa. Fidelity to one partner is the central message, and print materials, the major medium. Over two million leaflets and posters with the slogans "Zero grazing" and "Love carefully" were distributed in 1987, up from 2,000 in 1986. ("Zero grazing" is a phrase borrowed from agriculture and in this context means to stay with one sexual partner.) Community programs organized through churches and local political groups have been important information sources in rural areas. In addition, television and radio aired talk shows and public service announcements in several languages (297).

These efforts have had mixed success. A joint WHO/ Ugandan evaluation in 1988 found that knowledge of AIDS was widespread in Kampala and among the well-educated in rural areas. Most rural people were poorly informed, however. They had no radios, and the government brochures were not printed in the local languages (197). In the rural Rakai district, where AIDS is widespread, less than one-third of over 2,000 adults surveyed understood the slogan "Love carefully," and only 5 percent understood "Zero grazing" (382). According to other 1988 surveys of urban and rural adults, close to 90 percent knew that monogamy prevented HIV transmission, but less than 20 percent knew that condoms prevented transmission, and less than 5 percent used condoms (128, 225). To address these problems, the WHO team recommended:



*In Uganda posters such as this one for new parents now direct messages to various specific audiences.*

- More activities at the district and community level;
- Training packages in communication skills, patient care, and counseling for health care workers and others working in communities;
- More formative research and pre-testing of materials and more rigorous evaluation;
- Materials for special groups such as nonreaders, families of people with AIDS, and those engaging in high-risk behavior;
- Distribution of informational materials through many different channels; and
- Continued consideration of greater emphasis on condoms in information and education programs (197).

## Zaire

Demand for condoms in urban and some rural areas of Zaire increased sharply in mid-1988. The number of condoms distributed by public-sector programs jumped from about 200,000 in both 1986 and 1987 to about 1.5 million in 1988 (157). A social marketing program, begun in 3 of the 24 health zones in Kinshasa in late 1987, has expanded into all 24 and into other cities also. Sales of condoms, sold under the name *Prudence*, have risen steadily, reaching over 943,000 units in the first nine months of 1988. Sales would have been greater had more condoms been available (107).

LE GRAND MAITRE FRANCO
INTERPELLE LA SOCIETE
DANS
"ATTENTION NA SIDA"
CONTRE LE SIDA

*"Tell your children, tell these young ones all you know about and against AIDS," sings Franco Luambo in his song "Beware of AIDS," popular in Zaire. In Kinshasa three-quarters of adults have heard the song. Entertainment is a good way to reach people with information about AIDS.*

What accounts for this sudden demand for condoms? It seems likely that the government AIDS prevention campaign, along with continual coverage of AIDS in the mass media, is responsible. In 1987 the government began concerted efforts to educate the public. Television and radio aired public service announcements; talk shows featured leading physicians and public health officials; and a song about AIDS in French and Lingala, the major local language, was recorded by well-known Zairian singer Franco Luambo. Comic books about AIDS were widely circulated in Kinshasa. AIDS exhibits were displayed at local fairs. Newspapers ran full-page ads and stories. The campaign has used several slogans: "Everybody can get AIDS but everyone can avoid it," "Everyone must take care of himself," and "Love faithfully, or at least with prudence" (23, 107, 210). Condoms have not been particularly promoted, however.

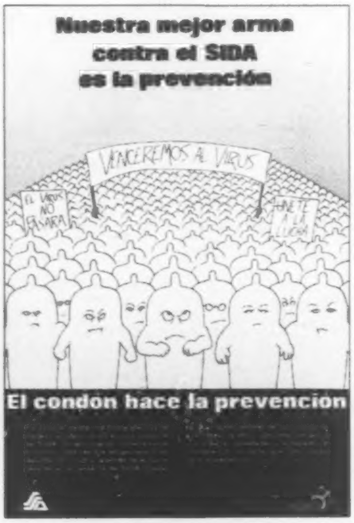
The mass media helped spread information in Kinshasa. In a 1988 representative sample survey of over 6,000, over 95 percent of men and over 80 percent of women had heard about AIDS on the radio. Over 90 percent of respondents knew how the virus was transmitted. Over three-quarters of all respondents knew about condoms (23).

Practice did not follow knowledge, however. Despite increasing condom sales, in the survey only 25 percent of unmarried men said that they had used condoms with their current partners, as did 28 percent of married men with extramarital partners. Less than 2 percent of married men used condoms with their wives (23). Nevertheless, the extent of public awareness and the new demand for condoms is impressive.

## Mexico

The Mexican AIDS mass media campaign opened up public discussion about AIDS, sexuality, and condoms and, for people at high risk, increased safer sexual practices. Designed by CONASIDA, the national AIDS prevention program, the first major national campaign began in 1987 using national media to inform the public. After a national survey showed widespread misconceptions about transmission, the second and third phases of the campaign were launched to correct common misconceptions and to promote safer sexual practices—monogamy or, failing that, condom use and reducing the number of sexual partners.

The campaigns involved television, radio, and newspaper advertisements, talk shows, pamphlets, posters, and a National Center for AIDS information. Print materials were designed for specific groups—for example, pamphlets on safer sexual behavior for homosexual men and information on HIV antibody tests for people practicing high-risk behavior. For all men, a brochure that explained explicitly how to use condoms was produced. Early messages emphasized fear and death; recent approaches use humor and positive emotions (see photo, left).



*This Mexican poster, showing marching condoms, proclaims, "Our weapon against AIDS is prevention. The condom offers prevention." Condom promotion by Mexico's national AIDS prevention program stirred controversy that started people talking about AIDS.*

From the start the campaign generated controversy. A conservative national parents' organization publicly condemned CONASIDA's program, contending that condom promotion would lead to promiscuity. Another parents' organization responded by publishing a large article in the national press supporting CONASIDA and public AIDS education. The campaign and the controversy fueled extensive news coverage—over 1,500 articles were published in the national press within a year. Thus the result of the controversy was positive. At little cost to CONASIDA, it brought public attention to the AIDS prevention campaign and made condoms a household word.

What has the Mexican campaign accomplished? Surveys conducted in September 1987, at the start of the campaign, and in May 1988 show, among the population as a whole, increases in correct knowledge about most aspects of AIDS, decreases in some misconceptions, and marked shifts to safer behavior among university students, homosexual men, and prostitutes (381).

### Knowledge and Behavior Before and After AIDS Education Campaigns in Mexico, Selected Survey Responses, September 1987 and May 1988

| | % Answering "Yes" | |
|---|---|---|
| | 1987 | 1988 |
| **Knowledge** | | |
| AIDS is preventable | 74 | 80 |
| Using condoms can prevent AIDS | 61 | 78 |
| Casual contact can give you AIDS | 40 | 31 |
| Only homosexuals get AIDS | 59 | 58 |
| **Behavior** | | |
| Used condoms in the last month | | |
| University students | 21 | 33 |
| Health personnel | 12 | 21 |
| Female prostitutes | 44 | 58 |
| Homosexual men | 27 | 43 |
| Other sexually active adults | 9 | 12 |

Sources: Sepulveda 1989 (380), Sepulveda et al. 1989 (381)

# *Lessons Learned*

What has been learned so far from public education programs about AIDS? Many of the lessons learned in other health education programs are proving true for AIDS as well. Drawing firm conclusions from AIDS education programs is difficult, however, because only a few countries have fully evaluated their programs. Nonetheless, experience does offer some lessons for AIDS prevention programs:

## Impact on Knowledge

1 **Mass media communication programs can disseminate information very effectively.** In countries as diverse as Mexico and Australia, many people have been exposed to AIDS messages, and most know more correct information about AIDS than before national mass media programs (30, 82, 180, 239, 257, 395, 427, 461).

2 **Misconceptions about the risks of casual transmission persist despite extensive exposure to correct information.** For example, more than half of US adults surveyed in September 1988 thought that HIV was either likely or very likely to be transmitted by kissing (125). Needless concerns about transmission through mosquito bites also are very common. To reduce anxiety and discrimination against people infected with HIV, information programs must address common misconceptions with easily understood and convincing messages.

3 **One particularly dangerous misconception, reported in a few countries, is that AIDS is curable.** For example, about two-thirds of adults surveyed in Kenya and about one-third in Kinshasa, Zaire, and rural Uganda thought that AIDS was curable (23, 225, 286). Over one-third of Zairians thought that there was a vaccine for AIDS (23). Education programs must stress that, unlike many other sexually transmitted diseases, AIDS cannot be treated successfully.

4 **Accurate information reduces discrimination against people with AIDS or at high risk of HIV infection.** In developed countries strong education programs have reduced unreasonable fears about casual contact with homo-

# Joseph H. Maier

This issue of **Population Reports** is dedicated to Joseph H. Maier, former Editor of Foreign Language Editions for **Population Reports**, who died July 26, 1989, from complications of AIDS. He was 39.

From 1980 to 1986 Jody Maier edited the foreign-language editions of **Population Reports**, overseeing the translation and production of **Population Reports** to French, Spanish, Portuguese, and Arabic. As an editor, he combined a dedication to meticulous translation and high-quality production with an appreciation of the importance and difficulty of the translator's work. Before becoming an editor, he served for a year as a Research Assistant, helping research and write **Population Reports**.

In 1986 Jody helped prepare **Population Reports**, *AIDS—A Public Health Crisis* (L-7, July-August 1986), serving both as an in-house technical expert and as a voice for those with HIV infection or AIDS.

He endured his own illness with courage and equanimity. What moved him was the suffering of others with AIDS. He devoted himself to advocacy on their behalf. He served on the Advisory Board to SHARE (Study to Help the AIDS Research Effort), the Johns Hopkins component of the larger Multicenter AIDS Comparative Study. He was a consultant to the Maryland state Governor's Task Force on AIDS. As a volunteer for Health Education Resource Organization (HERO), a Baltimore community organization, he edited the organization's newsletter and served as an AIDS "buddy," helping people with AIDS.

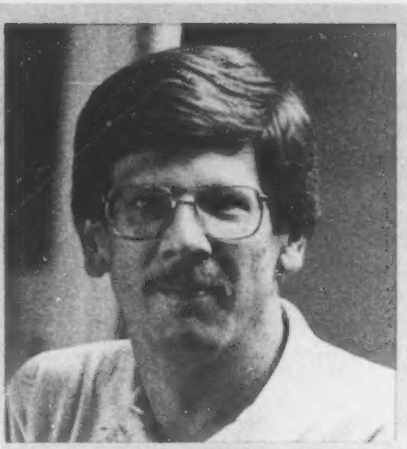


Photo by Kevin Weber

At a time when fears and prejudices against people with AIDS were rampant, Jody was the first in the Baltimore area to acknowledge publicly that he had AIDS. Eloquent on behalf of the needs and rights of persons with AIDS, he spoke to state conferences, testified before US federal government agencies, addressed many meetings and conferences of health care providers, and appeared in televised discussions and interviews.

His subject often was the human face of AIDS. Speaking to Johns Hopkins public health students in 1987, he reminded them that:

> AIDS begins with personal tragedy, and it ends with personal tragedy—thousands upon thousands of them. And in that vast, troubled arena in between, from research to politics, everything—and I mean everything—must be informed by those personal tragedies. The best that I can hope is that this will be a guiding principle for you when you do work as public health professionals. I'm not optimistic about the future, for I believe it holds much more bitter tragedy, and your work has just begun. (494)

sexual men and discrimination against people with AIDS (181).

5 **Few people know that a pregnant woman can pass HIV to the fetus.** Only 7 percent of Zambians surveyed and, in different surveys, from 5 and just under 20 percent of Ugandans knew about perinatal transmission (56, 296, 382). Similar results were reported in Botswana (242). Less than one-third of about 3,500 Zairian health care workers were aware of perinatal transmission (276). Where many women are infected or at risk of infection, education programs need to emphasize avoiding pregnancy.

## Impact on Behavior

6 **Mass media and national campaigns can motivate people to seek more information from other sources.** In some developed countries mass media campaigns have publicized hotline telephone numbers. Calls to these hotlines doubled or tripled during and after these campaigns (278, 428) and in response to news coverage of AIDS (159). Seeking more information is often the first step toward other changes in behavior.

7 **Mass media programs have encouraged discussion about AIDS in some, but not most, families.** In a recent Zambian survey 14 percent of adults had talked about AIDS with their spouses, and 11 percent, with their children (56). After the US national household mailing advised readers to talk about AIDS with their loved ones, 37 percent of those who read the brochure discussed it with their families, and less than one-third gave the brochure to their adolescent children to read (81). Although AIDS has increased public discussion of sexual issues, many barriers still exist within families. Programs need to find ways to help people communicate more openly.

8 **In countries that have had national campaigns, the change in high-risk behavior has varied among different populations.** According to surveys of randomly selected populations in Brazil, the Netherlands, and the US, 7 to 20 percent of surveyed adults reported some changes in sexual behavior—choosing fewer sexual partners, avoiding prostitutes, increasing condom use, or avoiding sex altogether (30, 89, 122, 306). In countries with surveys before and after campaigns, such as Mexico, Peru, and Sweden, changes in specific behavior of 2 to 8 percentage points have been reported (180, 249, 380, 427). It is not clear how accurate these self-reports are.

More striking changes are reported among specific groups as in Switzerland (see p. 9), in Mexico (see p. 11), and in the UK, where condom use among 18 to 24 year olds increased from 23 percent in December 1987 to 32 percent in December 1988 (212).

Other indicators suggest behavior change. In the Netherlands, Switzerland, the UK, the US, Uganda, Zaire, and several other countries, condom sales or requests for condoms from donor agencies have increased (105, 156, 157, 306, 427). In some US and European cities rates of sexually transmitted diseases among homosexual men have dropped markedly (154, 166, 235, 317).

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## Programmatic Lessons

9 **Pre-testing materials is crucial.** Pre-testing involves getting reactions from members of the intended audience to the tone, content, and appearance of proposed messages and materials. In fact, the more the intended audience can participate in developing materials, the more understood, credible, and effective they will be.

As in any communication program, AIDS messages that are not pre-tested may be ineffective or misleading. For example, in the first UK campaign in 1986, planners did not pre-test the first full-page advertisement in the national newspapers. Later analysis showed that only about 25 percent of people could understand it (384). Similarly, after the Zimbabwean national awareness campaign in 1988, significantly more teacher-trainees believed that Africans with AIDS were homosexual than before the campaign. Use of US and European print materials and films without pre-testing apparently created this mistaken impression (470).

10 **AIDS messages that arouse extreme fear attract attention, but how much they change high-risk behavior is not clear.** Very frightening images may arouse so much anxiety that the meaning of the message is lost. For example, the first major mass media campaigns in Australia and the UK, which dramatically evoked fear, increased requests for HIV antibody testing only among heterosexuals. Requests actually declined among homosexuals, who were much more likely to be infected (278, 288, 428, 429). Apparently, the theme made them so uncomforatable that they ignored the message. As a result, much time and money was spent testing low-risk people (397). Furthermore, the campaigns did not appear to affect behavior. Most heterosexuals came for testing to reassure themselves that they were not infected. Few requested counseling about preventive behavior.

11 **Compared with men, women know less about AIDS, learn about it later, and are less likely to hear about it through the mass media.** According to surveys in Kenya (286), Uganda (128), and Zaire (23), women often hear about AIDS from other people, whereas men get more information from radio and newspapers. Programs must

# Helping Young People Avoid AIDS

*The biggest way to catch AIDS is sexual acts*
*With so many people you can't keep track.*
*So if you want to have sex, you should have it with one.*
*But it would be better if you had it with none.*
*Cause every time you drop your pants,*
*You're taking a chance.*

*- US student's rap song about AIDS (459)*

Rap songs. Videos. Comic books. Puppets. These and other media are being used to teach young people about AIDS. AIDS education for young people needs to entertain (347), and, like AIDS education for other audiences, it needs to make safer behavior attractive.

AIDS education for young people is controversial. When should it start? How explicit should it be? Some argue that teaching adolescents about condoms will promote promiscuity. Studies show, however, that this is not so (244). Others argue that programs for youth are crucial because, while many young people are sexually active, they are not getting AIDS education or sex education at home.

### Strategies

AIDS education for young people relies on various strategies:

- **School programs.** Specially developed AIDS curricula with accompanying teaching materials help both teachers and students. A kit developed in Uganda with support from UNICEF (426) has proved so successful that it has been translated into Swahili and adapted for other African countries (413) (see photo, p. 5).
- **Youth teaching youth.** Letting young people be the teachers for their peers and even for adults helps make safer sex the community norm. Young people have spread the word through anti-AIDS clubs in Zambian schools (491), through dramatic productions in many countries, and through nationally televised youth debates on AIDS in the parliamentary chambers of several Caribbean countries (188).
- **Programs for out-of-school youth.** Many young people in developing countries are not in school. They are working or raising families. Tragically, more and more are homeless from war or poverty. Several organizations, including the Brazilian Interdisciplinary AIDS Association (ABIA) and Street Kids International of Canada, are reaching out to homeless street children through AIDS prevention videos, comic books, and brochures (464) (see photo, p. 23).
- **Skills training.** How can young people put AIDS information to good use? Skills training—such as teaching girls how to say no to sex (see box, p. 20), teaching sexually active boys how to buy and use condoms, and teaching both sexes how to discuss sex and condoms with their partners—helps young people practice the behaviors that will prevent transmission of HIV. Programs for youth that include skills training as well as information appear to be the most successful at changing attitudes and, perhaps, behavior (1, 37, 183, 220, 221).

emphasize interpersonal channels of communication in order to reach more women.

12 **Program planners should ensure that clinical and counseling services are prepared and condom supplies are available for the response to communication programs.** After the first Australian campaign in 1987, requests for HIV antibody tests increased by 65 percent (278). Blood testing sites did not have enough staff to meet the demand. If there are not enough health professionals or counselors to see clients or to answer hotlines, valuable opportunities to reinforce mass media messages, and to provide information and counseling will be lost. In addition, it is essential that the information and advice provided by counselors and other health care workers agree with messages in the mass media.

Mass media messages are only one component in a comprehensive AIDS prevention program. In many countries, however, the health infrastructure is not extensive enough to provide prevention counseling and other individual care. For the present, the mass media may be the only way to reach large numbers of people. The challenge for program planners is to use the mass media in new and creative ways to reach special audiences, to motivate behavior change, and to mobilize society to prevent AIDS.

# Programs for People at High Risk

Unlike AIDS education programs for the general public, which address people at many different levels of risk, programs for homosexual and bisexual men, for prostitutes, and for intravenous drug users are directed specifically at those most likely to engage in high-risk behavior. These programs face considerable challenges. First, reaching people at high risk can be difficult because the activities that put them at risk are not accepted by society, and people practicing them are not addressed by conventional mass media. Second, changing behavior can be difficult because sexual practices are deeply ingrained, because economic circumstances may offer some women no alternative to prostitution, and because intravenous drug use is both an addictive and a social behavior.

AIDS education programs have responded to the challenge of reaching people at high risk by applying basic communication principles: identifying the feelings, values, and attitudes of the audience; working with audience members directly to identify credible sources, channels, and messages; and emphasizing personal and group interaction. It has proved especially important to go directly to these hard-to-reach audiences and to recruit members to deliver messages and/or supplies.

To meet the challenge of influencing hard-to-change behavior, most programs encourage people at high risk to modify unsafe practices rather than to change the basic orientation that leads to risky behavior. Thus, for example, homosexual men are encouraged to use condoms during anal intercourse and/or to adopt nonpenetrative sexual practices rather than to abandon homosexual activity. This approach reflects the view that (1) small behavior changes are easier than big changes, (2) the AIDS epidemic requires immediate action without first resolving whether the underlying orientation should or can be changed, and (3) attempts to change basic orientation will alienate the audiences. Such an approach has sometimes antagonized policy-makers and other leaders, however. They argue that it condones and even encourages illegal or immoral behavior. Thus in many countries policy-makers have been reluctant to fund or even allow prevention programs for these groups. Yet approaches tailored specifically to distinct audiences are most likely to change behavior.

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## Programs for Men Who Have Sex With Men

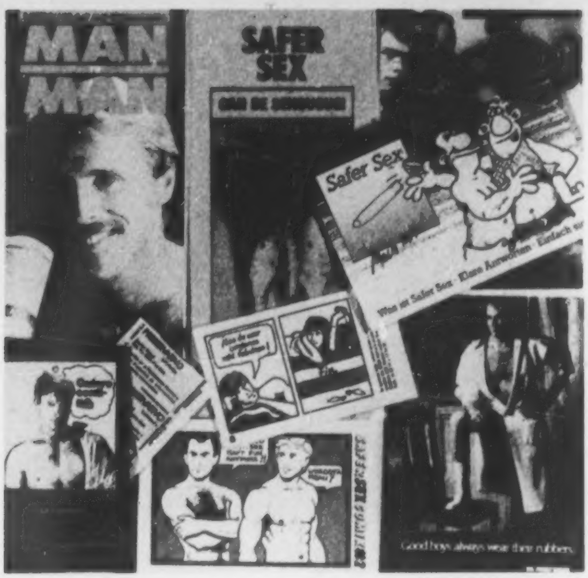
AIDS was first identified in 1981 in US homosexual men. Since organized health care services were slow to develop prevention programs for the homosexual community, men in major US cities organized their own programs. In many US and European cities homosexual communities that predated the AIDS epidemic facilitated early and widespread dissemination of AIDS prevention messages and encouraged men to support each other's behavior change. Many of the lessons AIDS educators have learned come from these efforts.

**Evidence of behavior change**. Evidence on behavior change among homosexual men is mixed. In prospective studies of groups of men, risky behavior has decreased. For example, in 1984, in a group of 411 men in San Francisco, 40 percent of HIV-positive men were having insertive anal intercourse with two or more partners in six months. By 1987 that percentage had decreased to 5 percent. Among men who remained uninfected, receptive anal intercourse with two or more partners in six months decreased from 15 percent in 1984 to 3 percent in 1987 (471). Similar changes have been reported in other US cities, Australia, Canada, Mexico, the Netherlands, Switzerland, and the UK (3, 130, 144, 194, 203, 260, 371, 406, 417, 419, 420, 450). These changes have occurred mostly among men in long-term studies who usually received counseling.

Other sources of information paint a less encouraging picture. Even though they know the risk, many men still engage in risky sexual behavior, especially men in areas where AIDS is not yet common (402). For example, in recent surveys 67 percent of men in a New Mexico STD clinic and just under half in long-term studies in Vancouver and Pittsburgh said that they *never* used condoms during receptive anal intercourse (201, 447, 467, 468). Those at high risk who are hardest to reach are younger men, racial minorities (100, 206, 214), and men who have sex with other men but do not identify themselves as gay, homosexual, or bisexual — for example, some married men, prisoners, and migrant workers.

Why is risky behavior still common? First, many men simply do not like using condoms or fear that their partners will not like them (446). In Mexico, for example, 45 percent of homosexual men who did not use condoms said that sexual partners would reject them (193). Second, alcohol and drugs often lead men to abandon safer sex practices (301, 392, 403, 446). In a US survey 35 percent reported using alcohol or drugs with over half of their sexual partners (448).

Most AIDS prevention programs for homosexual men encourage them to:


MAN
MAN
SAFER SEX
Safer Sex
Good boys always wear their rubbers.

*Many AIDS prevention efforts for homosexual men follow a proven principle of health education—making healthier behavior attractive. Posters, pamphlets, and comics from Mexico, the US, and West Germany show with humorous or explicit depictions that safer sex can be erotic and fun.*

- Reduce anal intercourse,
- Increase condom use, and
- Reduce the number of sexual partners.

What have been the best ways to reach homosexual men with AIDS prevention messages? Three approaches have been used:

- Promoting safer sex practices as attractive alternatives to high-risk practices,
- Marketing condoms to homosexual men, and
- Training men in the skills of condom use and safer sexual encounters.

**Making safer sex more attractive**. Homosexual men need assurance that safer sex can be enjoyable. For example, the Grupo de Apoio a Prevenção a AIDS (GAPA) in Brazil began its safe sex campaign in 1985 using the message, "Sex is good. Don't let AIDS end this." GAPA produced the first AIDS poster in Latin America and distributed over 15,000 copies. GAPA also provides information through three telephone hotlines, has a "buddy" program to help people with AIDS, and provides counseling and risk-reduction information at blood-testing sites (47).

Some programs have focused on making condom use more erotic and explicit, as well as safe. Such organizations as the Ministry of Health in Guadalajara, Mexico, the Health Education Resource Organization (HERO) in Baltimore, and Gay Men's Health Crisis in New York have created films, videos, and print materials that combine humor and eroticism to encourage condom use. For example, in Guadalajara condom use among homosexual men increased from 28 to 40 percent after men received specially designed "condom wallets," each containing two condoms and a miniature erotic comic book (196, 343, 464). While apparently effective, erotic AIDS materials often face political opposition.

**Marketing condoms to homosexual men.** Some companies are now marketing condoms specifically for homosexual men. In Switzerland a private company was created in 1985 to distribute the *Hot Rubber* condom. Commercial marketing techniques were used to develop, test, advertise, promote, and distribute these condoms. In 1986 market research led to the introduction of the *Hot Rubber Lubricant.* An advertising campaign with the theme "safer sex" promoted consistent condom use, while a campaign with the theme "let's talk" encouraged communication between partners. In 1986 about 185,000 *Hot Rubber* condoms were sold; in 1987 sales increased to 300,000 (6, 406). A similar marketing campaign is being planned in Mexico (343).

**Skills training.** Programs that teach how to use condoms, how to talk with sexual partners about using condoms, how to insist on their use, and how to adapt sexual activities to include condoms may help to increase use. These programs use group discussion and role-playing to rehearse possible encounters. Men in such a course in Pittsburgh increased their use of condoms from 36 percent of partners before to 80 percent of partners after the course, a 44 percentage point increase compared with an 11 percentage point increase among controls. Furthermore, the men reported that, without skills training, they would not have used condoms in one-third of their sexual encounters (448).

■

## Programs for Prostitutes

Obviously, prostitutes are at high risk for AIDS because they have many sexual partners, may often have sexually transmitted diseases (STDs), and, in developed countries, may be using intravenous drugs.

HIV appears to be spreading rapidly among prostitutes in many countries (see Table 1). The majority of prostitutes are women, and most AIDS education programs are directed to them. Male prostitution involves similar risks—perhaps higher risks if clients are homosexual (273). Where male prostitution is common, programs for this group are needed.

Many prostitutes, especially experienced prostitutes in developed countries, do use condoms with their clients (195, 228, 396, 439, 458). They often do not use them with their steady or nonpaying sexual partners, however (59, 62, 151, 176, 179, 309, 439).

Most prostitutes in developed countries who are infected with HIV were infected through intravenous drug use (309, 421, 425, 440, 458). In developing countries, where few prostitutes use intravenous drugs, prostitutes become infected largely through heterosexual intercourse (309).

The important messages for prostitutes are:

- Use condoms with all partners every time you have sex;
- Get STDs treated promptly;
- Do not have sex with partners who have open sores; and
- Do not have sex if you have open sores.

Most AIDS programs for prostitutes have focused on increasing condom use. The other messages have not been emphasized.

Few conclusions can be reached about designing programs for prostitutes. Most current programs are in the early stages and have not yet been evaluated. A few operations research projects are just beginning to produce findings.

The most common approaches include:

- Condom distribution along with counseling,
- Involving prostitutes as peer educators in prevention programs,

# Condoms and Spermicides: How Much Protection?

Using condoms correctly and consistently offers good protection against HIV infection. Increasing evidence among condom users and from the laboratory shows that good-quality condoms block passage of virus between sexual partners. The effectiveness of spermicides in actual use is still being studied, but laboratory tests show that several types inactivate HIV. Other research is underway to provide more choices for women and more durable condoms for men.

## Condoms Prevent HIV Transmission

Increasing evidence from the US, Europe, and Africa shows that condom use protects against HIV infection (111, 123, 174, 211, 234, 254, 287, 408, 439) as well as against other sexually transmitted diseases (STDs) (385).

The more consistently condoms are used, the more protection they provide. In a Kenyan study none of the prostitutes who always used condoms was infected compared with 56 percent of those using condoms less than half of the time and 72 percent of nonusers (287). Similar results are reported among prostitutes in Zaire (254) and the US (439). A study in Zaire followed the sexual partners of 144 people with HIV infection for an average of six months. Among the 85 percent who used condoms regularly, only one partner became infected. In contrast, three of the 15 percent who did not use condoms regularly became infected (211). A US study reports similar findings (123).

These results are not surprising. They confirm the many laboratory tests that have shown that latex condoms block transmission of HIV even in concentrations much higher than usually found in semen (26, 68, 352, 353, 370, 449). The more porous natural skin condoms, made from lamb intestines, do not always block HIV, however (250, 449).

## Good but Not Perfect Protection

Abstinence or a mutually faithful sexual relationship with an uninfected partner are the only sure ways to avoid sexual transmission of HIV. Condoms provide good but not perfect protection. For the greatest margin of safety, condoms must be used correctly, from start to finish, with every act of intercourse. This requires both a ready supply of condoms and motivation and cooperation between sexual partners. There is no room for mistakes. Unlike conception, which can occur on only a few days each month, infection with HIV or other STDs can occur at any time.

Condom breakage is uncommon. Most condom failures—whether leading to pregnancy or infection—probably result from incorrect use (174, 211, 385). Breakage occurs in less than 2 in every 100 acts of vaginal intercourse. It may be more common in anal intercourse—from less than one to 10 percent (71, 146, 162, 174, 333, 351, 451, 463). Also, condoms are more likely to break when used by inexperienced users (162) and when users apply oil-based lubricants (27, 339, 456). Risks of breakage can be minimized by leaving the condom in the package until just before use, by storing condoms in as cool and dry a place as possible, by putting them on correctly, by using only water-based lubricants, and by discarding any condoms that are brittle, sticky, or damaged.

Promotion for condoms and improved storage, distribution, and user information will encourage use and help to prevent user and method failures. These issues will be covered in detail in a forthcoming issue of **Population Reports** on condoms.

New, longer-lasting, and less expensive condoms, made from a blend of latex and plastics, may be available by the early 1990s (113, 133, 372). Family Health International is testing prototypes of a thermoplastic condom with a different shape and design from latex condoms.

## Spermicides

What can a woman do if her sexual partner won't use condoms? At present there are no proven safe options other than refusing to have sex. Laboratory studies on spermicides look promising, but the limited observation among women to date does not demonstrate their effectiveness against HIV. More research is crucial.

In laboratory tests nonoxynol-9, the most widely used spermicide, inactivates HIV within six seconds (169, 253, 329). Other spermicides—benzalkonium chloride, octoxynol-9, menfegol, and chlorhexidene—also destroy HIV rapidly in laboratory tests (75, 155, 292, 457). Nonoxynol-9 also inactivates a sexually transmitted AIDS-like virus in cats (69).

Preliminary evidence from the only study in women is disappointing, however. HIV infection occurred just as often among 51 Nairobi prostitutes using the contraceptive sponge, which contains nonoxynol-9, as among 48 prostitutes using suppositories without nonoxynol-9, even though the former group contracted gonorrhea less often (227). Studies among prostitutes may not be relevant for women with fewer sexual partners. Nevertheless, because the facts are not yet in, the United States Agency for International Development recommends that use of spermicides *only*, without condoms, should not be promoted for prevention of HIV transmission (434).

By reducing the risk of some STDs that increase susceptibility to HIV infection (13, 117, 118, 292, 387), spermicides indirectly help to protect women from AIDS .

But women need more than indirect protection. Several types of female condoms have been developed recently but not yet widely tested. One is a loose-fitting polyurethane sheath with a flexible ring at either end. The inner ring fits around the cervix, and the other ring, around the outside of the vagina. Like the latex used in male condoms, polyurethane blocks passage of HIV and cytomegalovirus (104). Clinical trials are underway in Nigeria, Thailand, the US, and the UK (33, 237, 238, 363, 366). Another type of female condom is a bikini-shaped latex garment that a woman wears like underpants. A rolled-up condom built into the garment unrolls on the penis as it enters the vagina. Manufacture in the US is planned (346).

- Skills training—in negotiating with sexual partners and in using condoms, and
- Reaching prostitutes' clients.

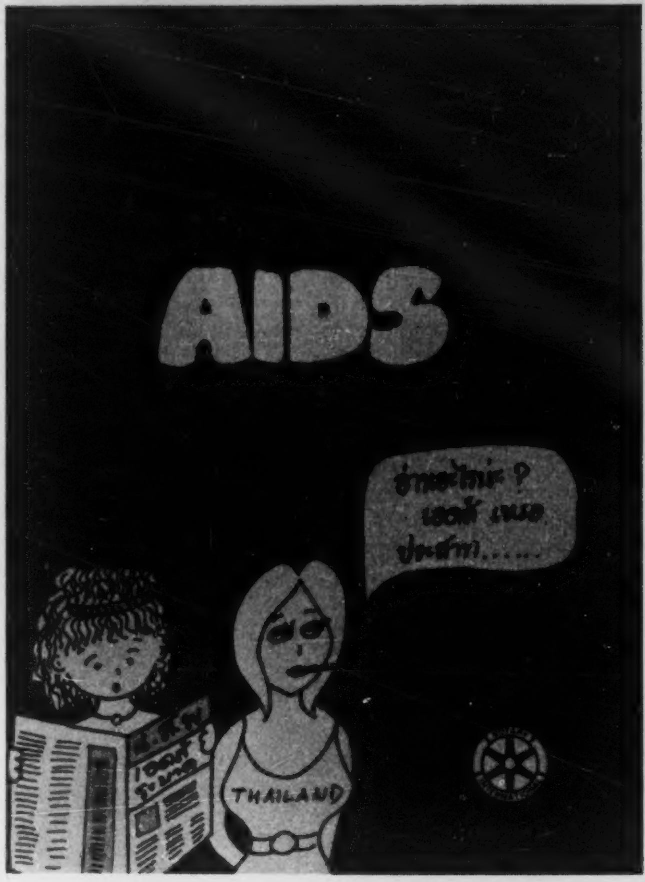
**Condoms and counseling.** In an operations research project with prostitutes in Nairobi, Kenya, condom use increased substantially among women receiving individual and/or group counseling and condoms (287, 325). The results suggest that less expensive group counseling can effectively replace individual counseling in increasing condom use. These results may not apply to prostitutes elsewhere, however, because many Nairobi prostitutes were already infected, and awareness of AIDS was high.

STD clinics often provide an ideal site for AIDS testing, counseling, and condom distribution. AIDS education programs at STD clinics in Greece, Peru, the Philippines, and Senegal led prostitutes to use condoms with more partners (127, 198, 362, 391). For example, in April 1988 an STD clinic in El Callao, Peru, expanded care to over 750 registered prostitutes, offering contraception, nutrition information, and STD and AIDS prevention education. Condoms and spermicides were provided free. Between August and December 1988 demand for condoms increased from 1,000 to 32,000 per month. Prostitutes reported using condoms more often, including during oral sex. Only two women became infected with HIV between April and November 1988, and the number of new cases of gonorrhea and yeast infections has decreased markedly (127, 332, 453).

Comic books, rather than counseling, were provided with condoms in the Mexican "condom wallet" project similar to the one for homosexual men (see p.15). Focus-group discussions and in-depth interviews found that prostitutes were concerned about how their children would be cared for if they themselves became sick or died. Therefore the comic book encourages women to stay healthy for their children. About 40,000 condom wallets were distributed to over 15,000 prostitutes in the 2-week campaign (343, 444). Reported condom use among these women increased dramatically. Only 39 percent used condoms in the month before the project. Six months after, 66 percent said that they were using condoms (445).

**Involving prostitutes in AIDS prevention.** Current or former prostitutes are often recruited as AIDS educators because they can find and talk with their peers more effectively than outsiders (65) and can help to change attitudes in their peer group. Prostitutes in Australia, Burkina Faso, the Dominican Republic, Ethiopia, Ghana, Jamaica, the Netherlands, Thailand, and the US have been trained to talk to their colleagues about AIDS and in some programs to distribute condoms (47, 64, 65, 231, 246, 462, 495). In Cameroon, after a pilot project of peer counseling and free condoms, the percentage of prostitutes using condoms at least half the time rose from 28 percent before the project to 95 percent six months later and then declined to 72 percent a year later (274, 290).

**Skills training.** Prostitutes need to learn how to convince clients and boyfriends to use condoms and how to refuse to have intercourse with them unless they do. Such skills are not simple. Many women—whether prostitutes or not—run the risk of being abused or abandoned if they insist on condom use or refuse to have sex. Prostitutes worldwide report that the main reason they do not use condoms is clients' resistance or refusal (62, 87, 151, 289, 294, 326, 469).



*"AIDS is incurable" warns this pamphlet from EMPOWER, a prostitutes' support group in Bangkok. In a number of countries groups like EMPOWER are teaching prostitutes to negotiate condom use with clients. A few are helping prostitutes find other jobs.*

Prostitutes also need to learn how to use condoms correctly. It might be assumed that prostitutes know how to use condoms, but a recent study in the Dominican Republic showed otherwise. Ninety-one prostitutes were assessed on their condom skills, using a plastic model of a penis. Less than 20 percent put condoms on the model correctly, and 7 percent of the condoms broke because of mistakes in use (360). These findings will be used to develop instructional materials for prostitutes.

**Reaching clients.** Programs are urgently needed to teach men facts about AIDS, dispel false beliefs, and motivate them to use condoms with both prostitutes and their steady sexual partners. Clients are even more difficult to reach than prostitutes, however. STD clinics, brothels, and the workplace are good places to begin. Peer education, group discussion, and counseling are promising approaches but have been used infrequently (41, 316). In the Netherlands, for example, clients of prostitutes distributed condoms to other clients (307).

■

## Programs for Intravenous Drug Users

The complex and secretive world of the intravenous drug user makes AIDS education difficult. Needle-sharing is a well-established social ritual (91, 95, 119, 298, 409), even where needles and syringes are legal and easily obtained (85, 416). More often, carrying or purchasing needles and syringes without a prescription is illegal (93), forcing drug users to share injection equipment.

Some intravenous drug users began changing their injecting behavior after hearing about AIDS in the news. In 1984, before formal AIDS education started for drug users, 75 to 90 percent of drug users interviewed in New York City and northern New Jersey knew that AIDS is transmitted through shared needles (222). Most reported using sterile needles, sharing needles with fewer people, or reducing drug use (138, 222, 373, 376), but few reported changing sexual behavior (17, 425). Despite some change, however, the rate of infection is increasing faster among drug users than among any other US group.

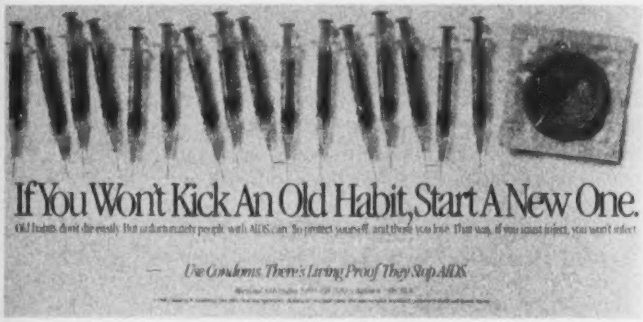
AIDS education campaigns urge intravenous drug users to:
- Stop drug use. This is the best and safest alternative.
- If they cannot stop using drugs, stop sharing needles.
- If needles are shared, clean them after every use with bleach or another disinfectant. Make sure all blood is removed.
- Use condoms with all sexual partners.

Some of these messages may sound contradictory, but people who cannot stop drug use need easier ways to protect themselves and their sexual partners. Thus programs for drug users often encourage several or all of these changes.

AIDS education programs for drug users can be loosely categorized as:
- Drug treatment and detoxification programs,
- Street outreach programs,
- Needle and syringe exchange programs,
- HIV testing and counseling, and
- Drug users' organizations.

A combination of approaches, brought directly into drug users' neighborhoods, may be the most effective.

**Drug treatment and detoxification programs** are necessary to stop drug use. Many also teach safer injection and sex practices to addicts who cannot give up drug use entirely. Treatment programs alone cannot control AIDS among drug users, however. First, not enough drug treatment programs are available. In the US for example, there are an estimated 1.1 million intravenous drug users (440) but only 120,000 to 130,000 treatment spaces (161). Many who have asked for help remain on waiting lists. Second, not all drug users want treatment; and in some cases treatment fails. Third, methadone maintenance, the most common treatment for heroin addiction, has no effect on cocaine addiction, and some drug users have begun or increased cocaine injection after starting methadone therapy (52, 377). Cocaine injection poses a greater risk of HIV infection than heroin use because cocaine users tend to inject more frequently and are more likely to share needles (398).


If You Won't Kick An Old Habit, Start A New One.
Use Condoms. There's Living Proof They Stop AIDS.

*Some drug users are using drugs less or sharing needles less, but they seldom change their sexual behavior. This poster prepared for the Maryland state AIDS Administration points out to drug users that they should use condoms to protect themselves and others.*

**Street outreach programs** reach drug users where they live. In developed countries trained former drug users often have been successful as counselors and teachers because they know the drug subculture (136, 263). A similar approach is being tested in Thailand (198).

Street outreach projects have had more impact when they have offered bleach for disinfection of needles and condoms as well as information (414). Clients of a San Francisco counseling outreach program that also distributes bleach and condoms increased their use of bleach to clean needles from 39 percent in 1986 to over 70 percent in 1988. Condom use increased from 23 to 42 percent (24).

**Needle and syringe exchange programs** allow drug users to buy sterile needles and syringes or to exchange used equipment for new. Exchange programs have been set up in Australia, the Netherlands, Sweden, the UK, and the US (40, 78, 137, 245, 335, 340, 375, 410, 472). These programs are controversial. Many think that providing needles condones or even encourages drug use. In response, advocates of exchange programs argue for using whatever means are most effective to prevent the spread of HIV (291). In Amsterdam, where an exchange has been operating since 1984, exchange clients shared needles less often, and the program has not encouraged drug use: 71 percent of exchange clients were using drugs less or no more often, compared with 49 percent of drug users who were not using the exchange (39, 40). Other needle exchange programs report similar results (96, 103, 197, 158, 424, 473). Exchange programs usually also provide street outreach, offer referrals to methadone and drug-free treatment, and distribute condoms and/or bleach.

In some areas HIV infection has spread among drug users despite needle exchanges (85, 236, 390, 416). Some drug users continue to share needles. The exchanges seem to attract older, long-term male drug users but not younger users or women (160).

Another way to stop needle sharing may be one-use-only needles and syringes (18). Several are being developed. The Program in Appropriate Technology for Health (PATH) plans to field-test two single-use syringes in 1989. One, for medical uses, would be prefilled. The other, more appropriate in exchange programs, would not be. A third syringe is being developed at the Johns Hopkins University with support from PATH (126, 285). These syringes cost only a little more than current syringes (252).

**HIV testing and counseling services** especially for drug users also are intended to encourage safer behavior (50, 258, 279), but their value is not yet clear (see p. 20).

**Drug users' organizations** offer peer support for safer behavior. Drug users have trouble organizing themselves, however, since they often distrust each other and established society (135).

Drug users' organizations have been formed in Amsterdam, New York City, and Sydney (138, 472). Users' organizations may provide information, bleach, condoms, sterile needles and syringes, and support for drug users with AIDS (135, 472).

## *Lessons Learned*

Despite limited evaluation to date, several lessons have emerged from programs for people at high risk. These lessons can also apply to all AIDS education—indeed, to all health education.

1 **Where the intended audience differs markedly from the program planners, extra efforts must be made to work closely with the audience and to pre-test materials.**

2 **Trained peer educators can teach hard-to-reach people and provide them with supplies.**

3 **Skills training can increase and sustain safer behavior.** Teaching people how to use condoms and how to negotiate their use is especially important.

4 **More extensive and careful evaluation of pilot projects is needed** so the most successful approaches can be expanded to reach more people.

5 **Multiple strategies will probably work best** with people at high risk. For example, many drug treatment centers also teach safer injection skills. This approach recognizes the primary need to stop the spread of HIV while helping people to stop drug use.

6 **Continuing efforts are needed to sustain new behavior.** Using varied messages with the same theme and as many media as possible can reinforce new behavior.

7 **Changing community norms about risky behavior should be a goal** of any AIDS prevention program. Promotion cannot be stopped until safer sex and drug habits are routine and accepted practices.

# Counseling

Counseling is face-to-face communication in which one person helps another make decisions and act on them (139). If counseling is to help prevent the spread of AIDS, it must give people the information and skills:

- To understand HIV infection and AIDS,
- To recognize how they may be risking infection or how they became infected,
- To understand how to avoid contracting and spreading HIV,
- To find medical care or the support and/or supplies needed to prevent infection,
- To prevent HIV transmission—for example, by using condoms and by negotiating with sexual partners.

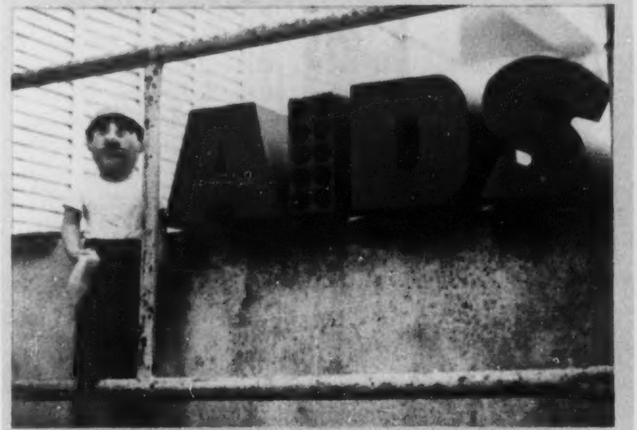
AIDS counseling should complement other prevention programs. The interpersonal contact in counseling plus the opportunity to ask questions and to meet repeatedly help clients absorb information and cope with the implications of HIV infection (265). Along with information, counseling can provide emotional support, allow people to express their feelings, and help them deal with rejection.

## AIDS Prevention in the Workplace

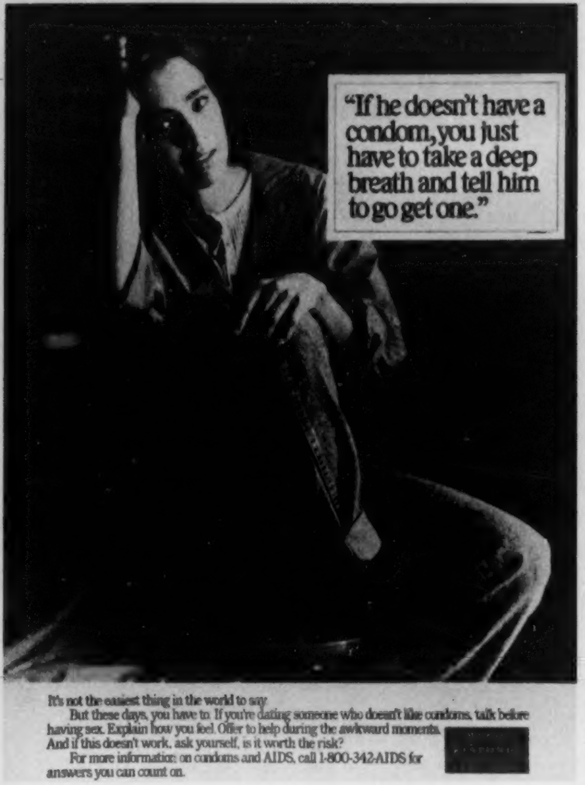
All employers will eventually be confronted with AIDS in their workplace. Approximately 90 percent of HIV-infected persons are employed (598). Employers must respond to the economic, medical, psychological, safety, and legal issues surrounding AIDS.

Where AIDS is most prevalent, its impact on the economy will be substantial. In the US, for example, AIDS is expected to cost US businesses $55 billion in productivity losses and $8.5 billion in health care costs in 1991 (12). AIDS may be an even greater economic disaster in some developing countries. Already it is taking its toll among professionals. For example, a hospital study in Zaire found that almost 9 percent of doctors, nurses, and other professionals tested in 1986 were infected with HIV (358).

In response to AIDS, some businesses and business groups in developing countries are organizing AIDS education programs. In Zaire, where a major study is underway, some businesses are insisting that AIDS education be incorporated into company-sponsored family planning programs. Preliminary surveys conducted at two businesses with over 14,000 employees have revealed that less than one percent use condoms (122). In Uganda the national Federation of Uganda Employers has organized an AIDS prevention program that trains workers in member companies to teach their peers and provide information (513). In Rio de Janeiro the Brazilian Interdisciplinary AIDS Association (ABIA) developed an audiovisual show featuring slides of clay models to educate construction workers (see photo below). Hundreds of workers in over 75 companies have already participated in workshops (4, 35, 235, 432).



*Zé Cabra Macho (brave heroic man) knows he must protect himself from accidents at work by wearing his safety helmet and boots. He also knows that he must protect himself from accidents in his lovemaking by wearing a condom. This is a slide from the ABIA's show for Brazilian construction workers.*


"If he doesn't have a condom, you just have to take a deep breath and tell him to go get one."

It's not the easiest thing in the world to say.

But these days, you have to. If you're dating someone who doesn't like condoms, talk before having sex. Explain how you feel. Offer to help during the awkward moments. And if this doesn't work, ask yourself, is it worth the risk?

For more information on condoms and AIDS, call 1-800-342-AIDS for answers you can count on.

## Learning How to Say "No"

People at risk for AIDS need to realize that they can often say "no" to unsafe or unwanted sex or drugs. Not everyone can avoid high-risk situations—for example, married women cannot always control their husbands' behavior or insist on condoms—but when one person is pressuring another to do something risky, good, quick responses can sometimes avoid trouble. Skills training allows a person to practice ways to say no *before* an uncomfortable situation arises. What to do?

- **Say no and keep repeating it.**
  Don't offer reasons or excuses for saying "no."
- **Take the offensive.**
  State how the person's continued pressuring is making you feel.
- **Identify the dangerous consequences of the actions.**
- **Suggest an alternative.**
  Say, "Instead, why don't we ..."
- **Refuse to discuss the matter further.**
  Walk away from the situation, but leave options open. Say something such as, "If you change your mind, call me later."

In addition, skills trainers urge people to avoid entirely situations in which others might pressure them to take risks (493).

All agree that counseling should be part of AIDS programs. But what form should counseling take? Who should provide it? Who should receive it? How much should be spent on it? Answers to these questions are urgently needed.

■

## Types of Counseling

The traditional medical model of counseling—a doctor talking to a patient in a clinic or hospital—is only one of many forms that counseling can take. Counseling also can involve sexual partners, families, communities, or peer groups. It can take place in a clinic, a church, a home, or a bar. The counselor may be a doctor or nurse, a paramedical worker, or a trained volunteer. In the US, Europe, and some Latin American countries, homosexual men have volunteered to counsel each other and to help develop ways to reach their peers. In some places people who have lost family members to AIDS are starting to counsel others.

What kind of counseling works best? Too little evaluation has been done to know if one type is more effective than others. Currently, planners must choose what is most feasible and acceptable in their communities.

**Individual clinic counseling.** Individual, one-on-one counseling in a clinic or hospital may be the most common AIDS counseling. Where HIV testing is available, individual counseling often takes place before and after testing. Such services are expensive. In the US the estimated cost for HIV testing and pre- and postcounseling averages $35 per person (213). Because of cost, most testing and counseling involves people who have symptoms of HIV infection or other STDs, whose sexual partners are infected, or whose behavior puts them at high risk of infection.

HIV counseling often takes place in an STD clinic or other health service. In Zambia in 1988 the STD clinic in University Teaching Hospital was counseling four new cases of HIV infection every day. Every client coming to the clinic is tested for HIV antibodies and told the results. After testing, the first counseling session covers HIV transmission, the client's understanding and feelings about the diagnosis, and, for infected clients, the importance of preventing subsequent STDs and pregnancy (171, 314). Infected clients are followed up and counseled every three months or more. Uninfected clients are counseled every six months. Staff contact clients by telephone or visit them at home if necessary. STD reinfection rates have fallen since counseling started (171).

Do testing and counseling change behavior? Limited research suggests that they do often but not always. According to most studies in developed countries homosexual men who learned that they were infected limited some unsafe practices more than men who tested negative and more than men who did not take the test (60, 114, 129, 132, 266, 452, 467). Other studies of homosexual men, however, have found either no behavior change or more high-risk practices among those testing positive or negative (101, 120, 204, 300, 371). Among intravenous drug users and hemophiliacs, studies are more consistent. Intravenous drug users testing positive generally reduce needle sharing and overall drug use but do not change their sexual practices (77, 91, 279, 368). In the few studies of hemophiliacs, learning about positive test results along with counseling increased condom use (312, 336, 348).

Drawing conclusions from these studies is difficult. Nevertheless, most public health organizations recommend testing and counseling (186, 425, 441), particularly now that early treatment with azidothymidine (AZT) has been shown to slow progression of infection in people without symptoms (170, 399). All caution, however, that counseling must accompany testing.

**Peer counseling**. Peer counseling allows clients to express their feelings and concerns to someone like themselves. The similarity between counselor and client makes the client more receptive to learning and to changing behavior as the counselor suggests. For this reason peer counseling may be particularly effective among adolescents, people who are infected with HIV, and people, such as intravenous drug users or prostitutes, who are outside of the mainstream of society.

Some programs for homosexual men involving peer counseling have been designed to build peer support for safer sex and to make safer sex the community norm. The STOP AIDS program in San Francisco, for example, has held meetings and workshops since 1984. In less than 3 years over 7,000 men in the area attended such meetings (338). The majority of these men have since worked for STOP AIDS or in other AIDS prevention projects (83).

**Group counseling**. In the US careful evaluations suggest that 6 to 12 sessions of group counseling are needed to help homosexual men with a history of high-risk behavior change their sexual practices (215, 401). In Brazil (48), Guatemala (275), and Mexico (299, 361), homosexual and bisexual men are participating in group programs. The impact of these programs on behavior has not yet been evaluated. This approach might not work where open discussion of sex is not acceptable.

¿Aló?
entre tú y yo, hay algo muy confidencial...
40-60-20 SiDAYUDA
TE INFORMAMOS SOBRE EL SIDA. TE BRINDAMOS AYUDA Y ORIENTACION ¡LLAMANOS!
mh l
Apartado postal 11289
AIDSCOM

*The SIDAYUDA telephone hotline in Lima, Peru, stresses confidentiality. Hotlines can offer counseling to people who do not want to talk with a health care provider face-to-face.*

**Community-based counseling.** Individual counseling places the responsiblity for AIDS prevention and behavior change on the individual. In contrast, community counseling involves a larger circle of family, friends, and community leaders in the fight against AIDS.

The Chikankata Hospital in Zambia links individual counseling in clinics with home visits and community education. With the client's permission, a team of at least three health care workers from the hospital visits the client's family and others in the community. They visit as often as needed to increase support for safer practices, to quiet fears about transmission by casual contact, and to improve the quality of care for symptomatic patients in their homes. Teams also work with community leaders. Recently, for example, one community voted to ban the custom of sexual intercourse between a new widow and her deceased husband's brother. In addition, Chikankata Hospital staff are training AIDS health promotion workers, local people chosen by the communities, to provide basic nursing care, AIDS education, counseling, and pastoral care. Communities that have received extensive education and counseling eventually may begin to counsel other communities (43, 44).

In Uganda The AIDS Support Organization (TASO) also works in communities. It was founded in 1987 by volunteers who had lost family members to AIDS. TASO provides information, education, counseling, and home care kits containing oral rehydration solutions, soap, antiseptic cream, and rubber gloves to families of people with AIDS (208). Over 36 trained volunteer counselors visit clients' homes daily and work in clinics (466). TASO also provides counseling training for health professionals, religious leaders, and volunteers.

**Telephone hotlines**. A hotline provides an anonymous, confidential source of information, support, referral, and sometimes counseling. An important component of AIDS prevention programs in developed countries, hotlines are now starting in some Latin American and Caribbean countries, too (369). For example, the Trinidad and Tobago AIDSLINE, opened in late 1988, received over 1,300 calls in the first five months of operation (205).

The anonymity of hotlines makes it easier for some people practicing high-risk or socially disapproved behavior to get information and support. Some hotlines are intended for specific audiences. SIDAYUDA in Peru, for example, was set up for homosexual and bisexual men (369) (see photo, this page).

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## Special Problems in Counseling

In addition to helping clients who test positive for HIV cope with the diagnosis, counselors also may have to confront various special situations (314):

**HIV infection in one sexual partner but not the other.** Sometimes the infected partner does not want to tell the other about the diagnosis. Special efforts may be needed to convince him or her to take preventive action (209). Special counseling may be needed to help couples understand their choices and to discuss their sexual practices openly. Of course, counseling both partners is best. Joint counseling is more effective than counseling partners separately (174).

**HIV infection in childless couples.** Most people want to have children, and in many cultures women are expected to have children. Realizing that it may not be possible to have a healthy child can be very difficult. Counselors need to tell clients about the risk of infecting the fetus and help them choose a family planning method. Joint counseling is preferable, particularly in cultures where husbands make decisions about contraception and family size (321).

**HIV infection in a pregnant woman.** A pregnant woman also needs information about the risks to the fetus so that she can decide whether to continue the pregnancy. Whatever her decision, she needs careful counseling about family planning to avoid future pregnancies.

**Parents with AIDS or severe HIV infection.** When both parents are seriously ill, they must make decisions about their children's care. Counselors can help them choose care-givers and help the whole family prepare for the future. In Tanzania and Uganda, efforts are underway to provide school fees and other support for "AIDS orphans" (11, 305).

## Training Counselors

With the HIV epidemic expanding, the need for trained AIDS counselors is growing. To find counselors, programs must look to health and social service professionals; community, educational, and religious leaders; and the families and friends of people with AIDS. Those already trained or experienced in counseling need to train others.

Counseling training programs are underway in many countries. WHO has conducted national and regional workshops for trainers from over 60 countries and has developed a training manual, scheduled for publication in 1989 (49). AIDSCOM has held training-of-trainers workshops in Africa and the Caribbean (7).

AIDS counselors need to know:

- Facts about HIV infection and AIDS so that they can educate their clients correctly;
- How to motivate clients to adopt protective behavior; and
- Other sources of information and support for infected people in the community.

Learning how to listen to clients and how to interact with them in an empathetic and respectful way is as important as being able to explain HIV infection, routes of transmission, and preventive measures (99, 411).

Practicing communication skills should be a major part of training. Trainees should participate in role-playing, case studies, brainstorming, and other activities that anticipate situations in counseling and that help them understand their own attitudes, prejudices, and beliefs (99, 411). (For a description of training for counselors, see **Population Reports**, *Counseling Makes a Difference*, J-35, November 1987.) Follow-up training several months later provides an opportunity for trainees to share their experiences and discuss counseling problems (165).

# Evaluation

Evaluation is particularly important in AIDS education programs. With so little experience to draw on and so much at stake, planners need to learn as much as possible from each project and program.

Research and planning for evaluation should start before a program begins. Formative research, before program implementation, involves working closely with the intended audience, usually through surveys and focus-group discussions. This enables a program to set measurable, appropriate objectives—a crucial initial step for any project. Objectives establish a standard against which progress and achievement are measured. This research also helps program managers to develop appropriate messages, design materials, and choose media so that the program and all its products will be meaningful, persuasive, and appealing to the intended audience.

Once the program is underway, formative evaluation, often using similar research methods, assesses progress and suggests improvements. When the project is finished, summative evaluation looks for lessons for future programs. Although various terms are used, there are three types of evaluation, each appropriate to different kinds of objectives: (1) process, (2) impact, and (3) outcome.

**Process evaluation**, also called output evaluation and monitoring, provides information about program implementation. It answers the question: Were all the intended outputs produced? Process evaluation shows whether materials were produced and distributed to the intended audience but not whether they were understood or whether they changed behavior.

**Impact evaluation** considers how programs affect the knowledge, attitudes, and/or behavior of the intended audience. The objectives of any project should include specific, measurable goals for changing knowledge, attitudes, and behavior. For AIDS prevention, some important indicators of impact are purchases of condoms, reported use of condoms, decreasing the number of sexual partners, changes in sexual practices, and greater discussion about AIDS between sexual partners and among parents and their children.

**Outcome evaluation** measures the actual health effects of a program. Reduction in HIV infection and AIDS cases is the desired outcome of most prevention programs. AIDS cases are not a useful measure, however, because infection may have occurred years before. Given the cost and difficulty of widespread testing, only rather small, prospective studies such as the research on homosexual men in developed countries or on prostitutes in Kenya (287, 325) have evaluated health outcome (61, 203, 254, 287, 471).

All impact and outcome evaluations should involve measurements before a program begins and after it could have had an effect. Usually this is the only way to know whether change has occurred, although some surveys conducted only after campaigns have asked whether respondents have changed their behavior. The simplest evaluation designs involve pre- and post-program measures of a single group of people exposed to the program. More complex evaluation, using experimental or quasi-experimental designs, takes measurements before and after the program in two groups—one exposed to the program and one not exposed. Sometimes people are randomly assigned to one group or the other. These more complex studies help to separate the changes brought about by the program from those occurring for other reasons. Only a few AIDS prevention programs, most of them among homosexual men or students in developed countries, have used experimental or quasi-experimental designs. In many cases the control groups can enroll in another program or the same program later, thus ensuring that everyone benefits. Also, different programs can be compared. Experimental and quasi-experimental designs are difficult to apply to mass media campaigns because, ideally, virtually everyone is exposed to them.

## Evaluation Methodologies

Most AIDS prevention programs have used one or more of the following evaluation methods:

1. **Observation.** Simple observation is basic to process evaluation and also can be used in impact evaluation. For example, trained observers have counted how often needles were shared in drug users' "shooting galleries." Observation is also a part of ethnographic research, which involves in-depth study of the knowledge, attitudes, and behavior of specific community groups and how these influence the risk of HIV infection. Ethnographic research helps in the design and implementation of interventions.

2. **Focus groups or in-depth interviews.** Focus groups are structured discussions with 8 to 10 people typical of the intended audience. A trained moderator leads group discussion on specific topics, such as attitudes toward condoms or beliefs about AIDS prevention, in order to understand the groups' thoughts and feelings. Focus groups are most useful for developing and pre-testing messages (443, 481). They also can help assess program impact on groups who are difficult to reach in surveys. Focus-group discussions can be arranged quickly and cheaply.

3. **Surveys** interviewing members of various groups are useful for process and impact evaluation. Surveys have asked about exposure to, recall, and comprehension of AIDS prevention messages and about knowledge, attitudes, and practices related to AIDS, including sexual behavior and condom use. Surveys also can identify misconceptions or attitudes that need to be addressed in future programs.

4. **Review of clinic or program records.** Statistics on calls to AIDS telephone hotlines, visits to clinics for counseling, and requests for HIV antibody tests indicate impact on requests for information or services.

5. **Condom sales or distribution** trends can suggest behavior change. If carefully designed, such indicators even can assess who is obtaining the condoms and where the most popular distribution points are.

6. **Review of statistics on sexually transmitted diseases.** These statistics are proxy measures for rates of HIV infection. They may reflect program impact on sexual activity that can transmit HIV.

7. **Surveillance of HIV infection rates.** Repeated surveys of small groups practicing high-risk behavior or of a group in one location, such as hospital employees, indicate changes in infection over time and thus may indicate the impact and health outcome of a program.

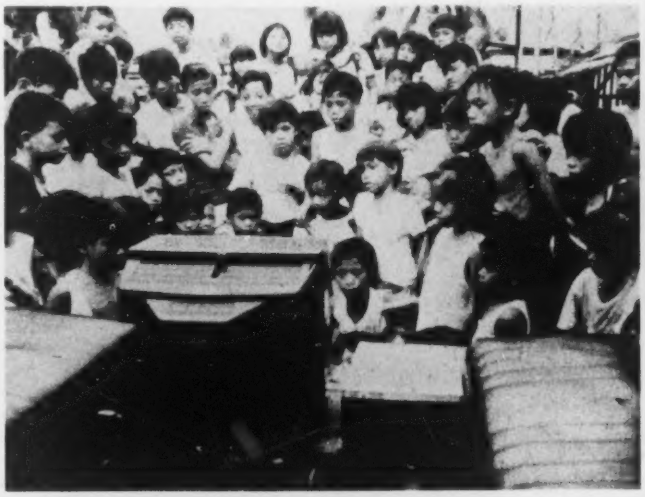
Planners need to select the evaluation methods that are most appropriate and feasible for their program objectives and situation. A combination of large-scale, quantitative research and smaller, qualitative research is often best (481). An ongoing operations research project in rural Uganda, for example, is relying on tests for HIV infection; surveys of knowledge, attitudes, and practice; STD service statistics before and after a health education program; and focus-group discussions conducted periodically throughout the project (460).

## Hurdles to Evaluation

To date, few AIDS prevention campaigns have been rigorously evaluated (202, 395, 425). Many programs focused on getting started quickly and often neglected to set measurable objectives or to plan for evaluation. In any case, evaluating AIDS prevention programs is not easy. Major obstacles are:

- **Cost.** Thorough evaluation is expensive. The Swiss national program, for example, spends about $400,000 (US) annually on evaluation—about 20 percent of the total program budget (405, 407). Programs can minimize evaluation costs in several ways—by surveying smaller samples, by relying more on small-scale qualitative research, and by using clinic and other statistics that are already being collected with other funds.
- **Multiple sources of information.** People learn about AIDS from many sources—newspapers, television and radio, health workers, and friends. Thus evaluating the impact of just one program is difficult unless an experimental or quasi-experimental design can be used.
- **Lack of accurate, easily available, objective indicators of relevant behavior change.** Incidence of HIV infection is the best indicator. But frequent antibody testing to determine new infections is expensive and intrusive. Thus testing usually must be limited either to small groups of people practicing high-risk behavior or to selected but not necessarily representative samples such as blood donors or women attending prenatal care clinics. Also, most studies must rely on self-reports. Self-reporting may be inaccurate, particularly when it involves illegal or socially disapproved activities. Condom sales and STD rates are more objective measures.

At present, there are no standard measures for evaluating AIDS communication programs. This complicates compari-



*Street Kids International took video monitors to the streets of Manila to pre-test their video with members of the intended audience. Surveys, interviews, and focus-group discussions help develop appropriate messages. The same methods are useful for evaluating program impact on people's attitudes and behavior.*

sons among programs. Standard measures would facilitate sharing evaluation results, to the benefit of programs everywhere (121). WHO guidelines scheduled for publication in 1989 are a first step toward such standardization.

## Family Planning and AIDS Prevention

In addition to supplying condoms, family planning providers are assuming a larger role in AIDS prevention. This is a logical and important step. Although family planning programs have not worked with all the groups at greatest risk for AIDS, they have long experience in policy advocacy, program planning, training, service promotion, counseling, sex education, and logistics. Many of the lessons learned from family planning programs apply to AIDS prevention as well.

At first many family planning associations were reluctant to work in AIDS prevention. Now family planning service programs realize that their clients will ask questions and need information about AIDS. Therefore they are working to combat AIDS in at least five ways:

1. **Contributing to national planning.** In several European, African, and Asian countries and in New Zealand and Australia, family planning providers either sit on national AIDS committees or in other ways advise governments on planning AIDS education programs and materials.

2. **Staff training.** Before family planning workers can help their clients, they must be trained to respond to clients' questions and concerns and to minimize the risk of HIV transmission in clinics. In every region family planning programs are beginning to train their own staff, from obstetricians to community-based workers. In Sri Lanka, for example, almost all of the 14,000 community-based distributors have been trained to talk to their clients about AIDS (223).

3. **Training for health care workers and other professionals.** Family planning organizations are training other professionals. For example, in Brazil the Associação Brasileira de Entidades de Planejamento Familiar (ABEPF), an independent family planning organization, produced an AIDS orientation manual and accompanying slide set in 1988. ABEPF worked closely with the State Secretariat of Health and private-sector AIDS education groups so that the manual would be useful to all health care workers (365).

4. **Counseling clients.** Family planning services are the first line of health care for many sexually active men and especially women. Family planning workers must be able to answer clients' questions and refer them to other sources of information and care.

Currently, very few family planning clinics offer HIV antibody testing and counseling (147). Testing is expensive and time-consuming. Clinics need to consider carefully the financial, staff, and time requirements, national policies on testing and confidentiality, and the impact of testing on other components of their program (72).

5. **Programs for people at high risk.** Family planning organizations have moved beyond their usual clients to reach people practicing high-risk behavior. In Brazil and Mexico family planning organizations are working with networks of homosexual men. In Cyprus and Tunisia family planning workers visit construction sites and speak to migrant workers. In Colombia community-based distributors visit bars, hotels, and prisons to give talks and offer condoms (223). In Sri Lanka the Family Planning Association is counseling prostitutes and young men working in the tourist industry (189).

■

### IPPF AIDS Prevention Unit

To help its affiliates with AIDS prevention, the International Planned Parenthood Federation (IPPF) AIDS Prevention Unit, established in 1987, has held two workshops on AIDS counseling and education and prepared two manuals—*Preventing a Crisis: AIDS and Family Planning Work* (147), for family planning program administrators, and *Talking AIDS* (492), to help field workers counsel clients. Both are

## World Health Organization Global Program on AIDS

**To unify national responses to the AIDS epidemic, the World Health Organization (WHO) established the Global Program on AIDS (GPA) in 1987. The GPA—an expansion of earlier WHO efforts—helps design and implement programs for preventing new HIV infection and for caring for those already infected.**

**GPA works on the national and international level. Its major activities are:**

- **Providing global leadership in the fight against AIDS;**
- **Promoting and supporting the development, implementation, monitoring, and evaluation of national AIDS control programs;**
- **Conducting and supporting research on epidemiology, behavior, health promotion, and HIV vaccines;**
- **Collecting, analyzing, and disseminating information on HIV and AIDS (476).**

**When a country asks for help, GPA follows a basic strategy that includes initial country visits, development of a short-term (6 to 18 months) and medium-term (3 to 5 years) national plan, and technical and financial support, including coordination with donors, to implement these national plans (415).**

**As of May 1989, 166 countries had asked to collaborate with GPA. Some 120 countries are carrying out short-term AIDS programs with WHO help, and 74 have started medium-term programs (415). Recently, at the recommendation of the Forty-Second World Health Assembly, GPA has begun to fund nongovernmental organizations working within the framework of national plans (474).**

**Supporting national plans is a top priority for GPA. Of $81 million (US) allocated between January 1988 and April 1989, $48.4 million went directly to support national programs (482).**

now available in English and will soon be available in French, Spanish, Portuguese, and Swahili. In Tanzania *Talking AIDS* is being tested for use in primary schools. In addition, the unit is preparing a self-instructional module on AIDS and packets to help organizations prepare their own materials. Funds are available from IPPF to support AIDS prevention programs by member associations (189).

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### UNFPA AIDS Support

Recognizing the importance of involving family planning programs in AIDS prevention, the United Nations Population Fund (UNFPA) encourages AIDS prevention messages as part of the family planning and population communication programs that it supports. Currently, UNFPA is supporting AIDS prevention in most of its African family planning programs and also in some programs in Asia and the Caribbean. In addition, UNFPA supports separate AIDS communication programs in a number of African countries. Also, UNFPA is working closely with the WHO/GPA and with National AIDS committees to link AIDS prevention activities with family planning and maternal and child health activities (102).

## *Lessons from Family Planning Programs*

Family planning programs have operated for almost three decades. They have been evaluated more extensively and with greater sophistication than most other health programs (134, 386). Because family planning, like AIDS prevention, involves changes in sexual behavior, many lessons learned in family planning programs also apply to AIDS prevention.

### *Personal Lessons*

1 **People are more likely to adopt and continue new behavior if they are offered a broad range of choices and can select the approach that suits them.**

No one means of contraception meets the medical needs or the personal preferences of all potential users. The greater the range of methods offered, the greater the likelihood that couples will find a method that suits them and will use it regularly (8, 67, 140, 149, 185).

Similarly, AIDS education can offer various choices: condoms, abstinence, limiting the number of sexual partners, lifetime monogamy, or practice of a number of safer sex practices.

2 **In changing sexual behavior, people go through an extended decision-making process. Counseling by service providers can be an important step in facilitating personal decision-making.**

People go through steps, often thinking about the choice and gathering information and opinions from various sources for some time before making a full commitment to family planning. Personal contact with a family planning provider is often the crucial step in the process (139).

AIDS prevention depends on a similar behavior change. People need continuing information and encouragement

## US AID Assistance to Combat AIDS

The United States Agency for International Development (US AID) works to prevent AIDS in many ways:

- Through direct contributions to the WHO/GPA. The 1989 contribution was $25.5 million.
- Through AIDSCOM and AIDSTECH, programs set up in 1987, which now provide funding and technical assistance to AIDS projects in 56 developing countries (541).
- Through other US government agencies—the Centers for Disease Control, the National Institute of Allergy and Infectious Diseases, and the Uniformed Services University of the Health Sciences—to provide technical assistance and research training in developing countries.
- Through the HIV/AIDS Prevention in Africa (HAPA) project, authorized in 1988, which currently funds governments and nongovernmental and private voluntary organizations in over 14 countries.
- Through support from US AID country missions for in-country AIDS programs.

All told, in 1988 US AID allocated $40.7 million for AIDS activities: $22.7 million for bilateral technical support, including AIDSCOM and AIDSTECH; $15 million for WHO/GPA activities; and $3 million for condom procurement and distribution. Figures for 1989 allocations are not yet complete.

**AIDSCOM** works with national and local organizations to develop and evaluate communication projects for AIDS prevention and counseling. AIDSCOM is a 5-year, $15.4 million contract managed by the Academy for Educational Development, 1255 23rd Street, NW, Washington, DC 20037, USA. Subcontractors are The Johns Hopkins University Center for Communication Programs, Porter/Novelli, the Annenberg School of Communication at the University of Pennsylvania, and the Prism/DAE Corporation.

**AIDSTECH** focuses on identification of screening tests to keep blood supplies free from HIV, surveillance systems to track the spread of infection, training for health care workers and laboratory technicians, education and condom distribution to groups at high risk for AIDS, and a small grants program for activities addressing high-risk populations (540). AIDSTECH, a 5-year, $28 million cooperative agreement, is managed by Family Health International, P.O. Box 13950, Research Triangle Park Branch, Durham, North Carolina 27709, USA.

**The HAPA project** provides rapid and flexible assistance to US AID mission-supported projects carrying out AIDS prevention research and program implementation. A HAPA grants program emphasizing community-based intervention is now funding nine projects in seven countries with technical support from the Johns Hopkins University Institute for International Programs (539). HAPA is a 3-year, $20.7 million project. Its address is: AIDS Coordinator, AFR/TR/HPN, US AID, Washington, D.C. 20523-1515, USA.

from many sources to adopt safer behavior. Prevention counseling is an important component of any service, and counselors must be skilled in interpersonal communication.

**3 Successful use of barrier methods of protection requires that sexual partners talk to one another and share responsibility for decisions and behavior.**

Couples who discuss family planning and the number of children they want are more likely to use contraception and to achieve their family planning goals than those who do not (141, 177, 342, 432, 433). Like family planning programs, AIDS programs, both in counseling and in mass media communication, need to encourage sexual partners to discuss AIDS risks and AIDS prevention measures.

**4 Satisfied users of a method can be persuasive advocates and supporters for other people considering or just starting a similar method.**

Personal example can be both a powerful encouragement to adopt a new practice and a strong reinforcement to continue. Vasectomy acceptors in the US (281) and IUD users in Sri Lanka (124) demonstrate the importance of personal contacts with satisfied users in encouraging use of family planning. Contacts with those who have not changed and have suffered as a result also are powerful persuaders. Similarly, in AIDS programs personal contact, not only with peers who have adopted safer practices but also with people who have AIDS, can help motivate people to change their own behavior.

## *Programmatic Lessons*

**5 Wide availability of services and supplies is crucial to wider adoption of new behavior, especially preventive health measures.**

To maximize use, family planning programs try to make services and supplies, including the information necessary to use them correctly, as available as possible—available in terms of time, distance, cost, cultural acceptability, and personal convenience. In practice, this means mobilizing a wide range of providers and locations. Also, it means services supported not only by governments and international donors but also by all types of community, educational, social, religious, and other influential nongovernmental organizations (58, 109, 140, 232, 233, 247, 423). A similar mobilization of services and service providers is needed to slow the spread of HIV infection.

**6 Policy-makers need accurate information and frequent expressions of public opinion to recognize that the problem is relevant to their governmental responsibilities, technically susceptible to solution, immediate, and a high priority for their constituents.**

On controversial issues such as those involving sex, family planning, or AIDS, policy-makers need constant, specific encouragement to support and promote appropriate policies. Advocates of family planning have learned the skills of political advocacy: making sure that family planning is defined as a governmental concern, is presented to policy-makers in terms that appeal to them, is discussed by peer groups of policy-makers, is frequently called to their attention by key political constituencies, and that the adverse effects of inaction or nonpolicy are highlighted (269, 319). Advocates of AIDS prevention programs can do the same. Policy-makers should be reached through the mass media, influential elites, and data on public opinion, which often runs ahead of government policy.

**7 Programs are more likely to succeed if they start small, concentrate on networks or subgroups where there is potential demand for help, and set realistic objectives.**

Successful family planning programs, such as those in Taiwan, South Korea, and Thailand, began with pilot projects to test various approaches, which were then adapted and expanded (134). These programs focused on reaching those who might want family planning most—women with large families, urban couples, and women right after childbirth (134, 355). These early adopters then formed communication networks that encouraged wider use (357).

Similarly, AIDS education efforts should begin among those who recognize that they face a risk and who are motivated to make changes. These people can then serve as role models and guides for others. At the same time, programs can expand using tested approaches.

**8 People providing information and services need initial training, regular supervision, and repeated training.**

Whatever advice, services, or supplies are offered, professional and nonprofessional providers need:

- Initial training, to learn the technical facts and personal communication skills;
- Regular supervision, to maintain quality, consistency, sensitivity, and morale; and
- Repeated training, to keep up to date and learn from the experiences of others.
- Training that teaches specific, practical skills relevant to the job leads to the most successful job performance.

An obvious but sometimes neglected requirement for effective programs is that service delivery workers actually carry out their assigned tasks (264). Regular supervision and refresher training are necessary to make sure that service providers are doing their jobs (140). Three characteristics—availability of services and supplies, adequate supervision, and ensuring that assigned tasks are carried out—were identified in a major cross-national analysis by W. Parker Mauldin and Robert Lapham as the three most important elements in a successful family planning program (232).

**9 Monitoring and feedback are necessary at every stage.**

Because they can track results, family planning programs with good feedback mechanisms, such as the BKKBN program in Indonesia (207), can identify problems and solve them (232). Service statistics are useful but need to be supplemented by knowledge, attitude, and practice surveys, commodity records, and, ultimately, demographic measures such as birthrates.

Gathering feedback on AIDS prevention efforts may be more difficult, but it can be organized. Methods include sentinel surveys of HIV prevalence or STD prevalence, condom use surveys, and interviews and observation at places where contacts between people may lead to high-risk behavior.

## 10 The way that health care providers treat clients has a substantial impact on clients' willingness to follow advice and to return when they have problems.

Family planning clients will not use family planning or return to service facilities if they are not treated with courtesy and respect (19, 38, 63, 139, 143, 243, 374). Thus good individual counseling is a crucial part of effective family planning programs. Similarly, AIDS programs depend on sympathetic counseling by health personnel to promote condom use or other changes in sexual behavior.

## 11 Special attention to men can encourage wider use and longer continuation of new sexual behavior.

Men play a major role—often *the* major role—in sexual, contraceptive, and other reproductive decisions. Therefore family planning programs have developed various ways to inform men and include them in counseling and health care programs (51, 141, 190, 313, 388).

Family planning research has found that men's reasons for favoring or opposing family planning differ from women's reasons. Therefore programs have developed appeals addressed specifically to men's concerns. Such research has also found that many men are interested in learning about family planning but do not want to learn from their wives.

AIDS programs need to undertake comparable research on male and female attitudes and to base approaches to heterosexual men on that research. Of course, in some areas AIDS prevention programs are intended specifically for homosexual men. But AIDS prevention efforts need to reach other men as well, whether as husbands, as clients of prostitutes, or as adolescents just beginning sexual activity.

## 12 Organizing peer groups to provide information, services, and support can persuade people to change their behavior and to maintain new behavior.

Family planning programs have used—and sometimes even created—a wide range of peer-group services. Family planning communication research documents how innovation spread through social networks (357). Small, primary subgroups such as relatives, friends, and neighbors exchange family planning information (134). Larger, more formally organized peer-group organizations can provide services as well as information. Examples include village Mothers' Clubs (218), employers and unions (218, 354), and youth centers (244). School and church programs often can combine medical services with emotional support (150). Many of these institutions can be crucial in AIDS prevention, especially if they can involve networks of people at high risk. In this way people at high risk and people infected with HIV can contribute to the solution of the AIDS problem.

## 13 Mass media can play a major role not only by providing information and increasing awareness but also by stimulating people to seek more information and by making taboo subjects legitimate for public discussion.

Cross-national comparisons, operations research projects, and evaluation of specific family planning media projects show that well-designed mass media projects encourage people to seek out more information and to use family planning services (140, 217, 232, 320, 330, 331, 349). This information-seeking can be the first step in the gradual process of behavior change. Furthermore, mass media attention can legitimate public discussion and encourage private discussion of a sensitive topic such as AIDS or family planning. It also can put the issue on the national policy agenda. In addition, the mass media reach large audiences at the lowest cost per person.

## 14 Entertainment, such as songs and dramas, can influence people powerfully since audiences often identify with and imitate the characters and behavior depicted.

Mass media can present models for personal behavior through entertainment that people see, experiment with for themselves, and often adopt (15). For example, popular adolescent singers can show other adolescents how to say "no" gracefully to premarital sex (217). Soap opera stars can offer role models that enhance the status of women and promote family planning (15, 364, 394). Professional-quality media products and especially popular entertainment can have a greater impact than materials designed for purely educational purposes because they attract a much larger audience and because they encourage the audience to identify personally and emotionally with the characters (217, 364, 394). This new approach, pioneered by Johns Hopkins Population Communication Services, has been called "Enter-Educate." The Enter-Educate approach is being applied to AIDS prevention but might be further emphasized to give AIDS prevention messages the power of emotional involvement created by high-quality entertainment.

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Note: Many of the items in this bibliography come from the books of abstracts of papers and posters presented at recent international conferences on AIDS. The citations to these books are abbreviated as follows:

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**Ixtapa conference** = 1st International Symposium on Education and Information about AIDS. Ixtapa, Mexico, Oct. 16–20, 1988.

**Arusha conference** = 3rd International Conference on AIDS and Associated Cancers in Africa, Arusha, Tanzania, Sep. 14–16, 1988.

**Stockholm conference** = 4th International Conference on AIDS, Stockholm, Sweden, Jun. 13–16, 1988.

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# Population Reports

## Pharmacists and Family Planning

**The closest and quickest place to get contraceptives is often the neighborhood pharmacy. Worldwide, about 55 million couples buy their family planning supplies in pharmacies. This amounts to over half of couples using such temporary family planning methods as pills, condoms, and spermicides.**

**But pharmacies could serve many more. Almost 450 million couples need the family planning supplies that pharmacies sell.**

The developing world offers great potential for growth in pharmacy sales of contraceptives. Currently, pharmacies in developing countries serve about 15 million family planning customers. Even though some people cannot afford pharmacy prices and some in rural areas cannot reach pharmacies easily, more than 85 million couples in developing countries could be buying contraceptives from pharmacies.

Why is the potential of pharmacies important to family planning? Because pharmacies can serve many people quickly and conveniently. Because pharmacy staff serve many customers every day who might buy contraceptives but who do not visit clinics or doctors. And because demand for family

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planning is growing faster than free government services can accommodate. If people who can afford to pay for contraceptives buy them at pharmacies, governments will have more resources for people who cannot afford to pay.

## Serving More Users

What can pharmacies do to provide more people with family planning? They can:

- Carry a reliable supply of a range of contraceptive methods and brands;
- Display contraceptives prominently, including condoms and oral contraceptives;
- Offer accurate information and sound advice about family planning and contraceptives;
- Sell low-priced brands of contraceptives, including those supplied and promoted by contraceptive social marketing programs.

Contraceptives are seldom such big sellers as antibiotics, vitamins, and cold and cough remedies. Thus most pharmacists need support to promote family planning.

## Working with Pharmacists

To support pharmacists, family planning programs can:

**1. Promote family planning—and pharmacies—to the public.** Family planning ads from Colombia to Bangladesh refer people to pharmacies, and some even depict pharmacists. Mass-media promotion through product and brand advertising, public service announcements, and entertainment with family planning messages can increase sales.

**2. Provide contraceptives that pharmacists can sell at low prices to attract more customers.** Social marketing programs supply pharmacists with low-priced products and, when setting sale prices, often add more than the customary percentage for the pharmacist.

**3. Encourage health care providers to recommend nonmedical family planning methods when appropriate.** Providers should recognize that condoms or spermicides are the best method for certain clients. They can refer some clients to pharmacies for regular supply.

**4. Inform pharmacists and staff about family planning.** Training can spur pharmacists' interest, improve their advice to customers, and increase sales by 20 to 60%, studies show. Both in-service training and specific pharmacy school courses are needed.

As entrepreneurs, pharmacists know that their livelihood depends on attracting and keeping customers. The successful pharmacist knows how to give customers what they want, when they want it, and in a friendly, respectful manner. With help, pharmacists can apply these skills to family planning. The result will be more customers for the pharmacy and more and better services for family planning users.

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# Buying Contraceptives at the Pharmacy

Millions of people visit pharmacies every day to buy drugs and other medicines and to get information. Some are looking for contraceptives, and they may need the pharmacist's advice to choose one and to use it correctly.

Worldwide, an estimated 55 million married couples of reproductive age buy their contraceptives in pharmacies. This amounts to about one-fifth of couples using family planning and 54% of couples using the contraceptive methods most widely sold in pharmacies—condoms, oral contraceptives (OCs), injectables, diaphragms, and spermicides.

Most of these couples—40 million—live in developed countries, where contraceptive use is more widespread than in developing countries and pharmacies are the main source of contraceptive supplies. These 40 million couples amount to almost one-third of all developed-country couples using any contraception, including voluntary sterilization, and three-quarters of those using temporary contraceptive methods. This figure for developed countries is based on estimates of pharmacy use from the contraceptive manufacturing industry and on national population-based surveys.

In developing countries an estimated 15 million married women of reproductive age buy family planning supplies from pharmacies. This amounts to about 10% of those using any family planning method and about one-third of the 50 million using temporary methods in developing countries (see Figure 1, p. 7). This estimate is based on data on source of supply from Demographic and Health Surveys (DHS) and other recent surveys in 28 countries (see Table 1), projected to other developing countries on a regional basis. These estimates exclude China, where pharmacies distribute contraceptives free rather than sell them. Half of OC users and 20 to 30% of condom users in China obtain their supplies from pharmacies.

## Regional Differences

The importance of pharmacies as a source of family planning supplies varies by contraceptive method and by country (see Table 1). In all regions condom users are the most likely to get their supplies from pharmacies, followed by users of vaginal methods (diaphragms or spermicides) and OCs. In some Latin American countries women using injectables are even more likely to go to pharmacies than are OC users.

As a source of contraceptives pharmacies are most important in Latin America and the Near East and least important in Asia and Africa (see Figure 1). For example, in Brazil, Colombia, Mexico, Paraguay, and Egypt, over 60% of people who use condoms, OCs, injectables, or vaginal methods obtain their supplies from pharmacies—the highest among developing countries with data available. In Latin America about 75% of temporary method users buy at pharmacies. In most Latin American countries about 60% of users buy at pharmacies, but Brazil, with its exceptionally high use of pharmacies and large population, dominates the regional average. At the other end of the scale are such countries as Indonesia, Kenya, and Senegal, where 5% or less get their contraceptives from pharmacies.

These figures and those in Table 1 may underestimate the role of pharmacies because they are based largely on survey samples of currently married women. Sexually active unmarried men and women are more likely than married women to use temporary methods and thus to buy at pharmacies. For example, in Ondo State, Nigeria, 12% of married women who used methods involving supplies bought at pharmacies, according to the 1986 Demographic and Health Survey. By comparison, 37% of all women, married and unmarried, who used these methods bought them at pharmacies (194).

There are several reasons for geographic differences in pharmacy use. Income levels and the number of pharmacies per 100,000 population account for some of the difference among the regions. In general, people's incomes are lower, relative to contraceptive prices, in Asia and Africa than in Latin America and the Near East (see p. 9). At the same time, some Asian countries, such as Indonésia, have national family planning programs that provide a large clientele with free contraceptives. National programs in most Latin American countries are smaller. Also, there are more pharmacies and pharmacists per 100,000 population in Latin America and the Near East than in Africa and Asia (see Table 2, p. 6). There are exceptions to this regional pattern, however. For example, in Ghana, which has a history of social marketing programs and about 3,300 pharmacies and chemical sellers, in 1988 about one-third of people using OCs, condoms, or vaginal methods obtained their supplies from pharmacies or chemical sellers. Only 4% of married women of reproductive age used these methods, however (104).

Most figures in Table 2 represent licensed pharmacies, operated by or employing pharmacists who have graduated from pharmacy school. Unlicensed pharmacies, however, are an important source of drugs and other pharmacy products in developing countries, particularly in rural areas (see box, p. 5). Their numbers are not known. The survey responses reported in Table 1 do not distinguish between licensed and unlicensed pharmacies.

In developed countries pharmacies are by far the largest source of contraceptives. In the United States, for example, pharmacies sell about 65% of condoms; institutions (clinics or government agencies, for example) distribute about 20% of condoms; food and convenience stores sell 10%; and mail order and vending machines, about 5% (94). Some 76% of OCs are sold through pharmacies in the US (346).

*In developing countries 15 million married women buy contraceptives in pharmacies like this one in Colombia.* (J. LITTLEWOOD, WHO)

Table 1

## Percentage of Temporary-Method Users Who Obtain Supplies from Pharmacies

*As Reported in Demographic and Health Surveys and Other Surveys of Women of Reproductive Age, 1983–1989*

| *Region & Country* | *Ref. No.* | *Year* | *% Using Temporary Methods*[a] | *% of Users Supplied by Pharmacies*<br>*Any Temporary Method*[a] | *OCs* | *Condoms* | *Injectables* | *Diaphragm* |
|---|---|---|---|---|---|---|---|---|
| *AFRICA* | | | | | | | | |
| **Botswana** | 45 | 1988 | 22 | 2 | 1 | 12 | 0 | b |
| **Ghana**[cd] | 104, 325 | 1988 | 4 | 31 | 29 | b | b | 40[e] |
| **Rural** | | | 3 | 31 | 28 | b | b | 38[e] |
| **Urban** | | | 6 | 31 | 31 | b | b | 42[e] |
| **Kenya**[c] | 144 | 1989 | 8 | 1 | 1 | 18 | 0 | 0 |
| **Liberia**[cd] | 55, 325 | 1986 | 4 | 16 | 18 | b | 8 | b |
| **Nigeria, Ondo State**[d] | 194, 325 | 1986 | 3 | 12 | 18 | 25 | 0 | b |
| **Senegal** | 187. 325 | 1986 | 1 | 4 | 2 | b | b | b |
| **Togo** | 293, 325 | 1988 | 2 | 27 | 45 | 30 | b | 20 |
| **Uganda** | 325, 357 | 1988–89 | 2 | 4 | 6 | b | 0 | b |
| *ASIA* | | | | | | | | |
| **Bangladesh** | 180 | 1985 | 8 | 38 | 43 | 34 | 0 | 47[e] |
| **Rural** | | | 6 | 31 | NA | NA | NA | NA |
| **Urban** | | | 22 | 57 | NA | NA | NA | NA |
| **Indonesia**[cd] | 134, 325 | 1987 | 27 | 4 | 2 | 53 | 0 | b |
| **Rural** | | | 26 | 1 | 0 | 44 | 0 | b |
| **Urban** | | | 29 | 11 | 7 | 57 | 0 | b |
| **Sri Lanka**[d] | 276, 325 | 1987 | 9 | 15 | 14 | 37 | 0 | b |
| **Thailand** | 53, 325 | 1987 | 28 | 15 | 21 | 40 | 1 | b |
| *LATIN AMERICA & CARIBBEAN* | | | | | | | | |
| **Bolivia** | 44, 325 | 1989 | 3 | 36 | 39 | 69 | 15 | b |
| **Brazil**[c] | 26, 325 | 1986 | 28 | 93 | 92 | 100 | 95 | 88 |
| **Rural** | | | 27 | 90 | 90 | 91 | b | b |
| **Urban** | | | 28 | 93 | 93 | 100 | 94 | 91 |
| **Colombia** | 60, 325 | 1986 | 23 | 64 | 63 | 47 | 72 | 77 |
| **Rural** | | | 17 | 65 | 62 | 70 | 50 | 94 |
| **Urban** | | | 26 | 64 | 63 | 45 | 77 | 71 |
| **Dominican Republic** | 73, 325 | 1986 | 10 | 20 | 17 | 42 | b | b |
| **Ecuador** | 196, 340 | 1987 | 7 | 20 | 20 | NA | 15 | 21 |
| **El Salvador** | 182 | 1988 | 11 | 29 | 22 | 54 | NA | NA |
| **Guatemala** | 117 | 1987 | 6 | 24 | 12 | 69 | 12 | 36 |
| **Mexico** | 177, 325 | 1987 | 15 | 65 | 63 | 55 | 79 | 82 |
| **Rural** | | | 12 | 47 | 41 | 56 | 58 | b |
| **Urban** | | | 17 | 77 | 47 | 54 | 92 | 84 |
| **Paraguay** | 181 | 1987 | 20 | 79 | 76 | 79 | 89 | NA |
| **Peru**[c] | 196, 208 | 1986 | 6 | 48 | 45 | 61 | 49 | 58 |
| **Trinidad &Tobago** | 126, 325 | 1987 | 32 | 52 | 53 | 56 | NA | 48[e] |
| *NEAR EAST* | | | | | | | | |
| **Egypt** | 79 | 1988 | 19 | 89 | 87 | 98 | NA | NA |
| **Jordan** | 19 | 1983 | 9 | NA | 68 | NA | NA | NA |
| **Morocco** | 183, 325 | 1987 | 24 | 11 | 11 | 14 | 20 | b |
| **Tunisia** | 295, 325 | 1988 | 12 | 46 | 49 | 47 | NA | 59 |
| **Turkey** | 119 | 1988 | 15 | NA | 79 | 69 | NA | 98[f] |

*NA = Information not available*

*OCs = Oral contraceptives*

*[a] Limited to methods usually available in pharmacies—OCs, condoms, injectables, spermicides, diaphragms, and other vaginal methods.*

*[b] Fewer than 10 users in sample*

*[c] Source of supply or source of information for current users*

*[d] Pharmacies and shops or chemical sellers*

*[e] Includes other vaginal methods*

*[f] Other "female scientific methods"*

*Note: Survey populations consisted of currently married women age 15–49 except in: Brazil, El Salvador, Guatemala, and Paraguay—age 15–44; Botswana, Kenya, Peru, and Ecuador—all women 15–49; Bangladesh, Egypt, and Turkey—currently married women for percentage using temporary methods and ever-married women for percentage of users supplied by pharmacies.*

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Why do some people in developing countries go to pharmacies—even if they can get family planning supplies more cheaply or free from a clinic or community-based distribution program? Studies of pharmacists and their customers have found that pharmacies offer four important advantages:

- Convenience,
- Choice of products,
- Choice of providers, and
- Free information and advice.

■

## Convenience

In urban areas pharmacies are close by and offer fast service. For example, a survey of mostly lower-income pharmacy customers in Maiduguri, Nigeria, found that they went to pharmacies rather than hospitals because service is fast; pharmacies are not crowded; they are close by; the cost of drugs is low; and they rarely run out of stock. These are conveniences that people are willing to pay for. The cost of drugs in pharmacies was low enough that it was not a barrier to these customers (133). People may have to travel a long distance to a government or private clinic, and they often criticize hospitals and clinics because of long waits and busy, sometimes disrespectful personnel.

Since most pharmacies are located in cities and towns, most pharmacy customers are the urbanites who live close by. In rural areas rates of contraceptive use are lower than in urban

# What Is a Pharmacy? Who Is a Pharmacist?

Pharmacies—whether they are community pharmacies or hospital or clinic pharmacies—all dispense drugs. Community, or retail, pharmacies are public places of business that sell drugs. Community pharmacies are also known as drugstores and chemist shops. In many countries all these names mean the same thing, but in other countries drugstores and chemist shops carry only over-the-counter medicine and are not allowed to dispense prescription drugs. In Colombia, for example, a *farmacia* and a *droguería* are the same. In Zambia, however, drugstores are not allowed to distribute drugs that require a prescription (91). In still other places—Jordan and most Latin American countries, for example—the term "drugstore" refers to wholesale drug outlets, which do not sell to the public (217, 314). In general, this issue of **Population Reports** uses the same terms adopted by each researcher as appropriate in the country studied .

Pharmacies range from large chain stores to small, independent neighborhood shops. Chain stores are not as dominant in developing countries as they are in some developed countries. In Latin America the *botica*, the small, independent, family-owned, neighborhood pharmacy, is still common.

In some countries the government runs some or most of the pharmaceutical industry. In Algeria, for example, the state has a monopoly on the importation, manufacture, and wholesale distribution of pharmaceuticals (77). In Cameroon the government runs pharmacies attached to health clinics or hospitals. These pharmacies distribute medicines free or for a small charge. They may be run by a health worker with no special qualifications (308).

The staff at a community pharmacy may consist of the owner and/or pharmacist, pharmacist assistants, and clerks. A pharmacist is a graduate of a professional pharmacy school—usually a 4- or 5-year program—who is licensed to dispense drugs.

There are approximately 157,000 formally trained, licensed, and registered pharmacists in the 27 developing countries for which information is available (see Table 2). This figure includes 86,000 Indian pharmacists. The total number of people working as pharmacists is larger, of course, because many have no formal training. They may be self-taught or have worked in another pharmacy before opening their own pharmacy.

Most countries require pharmacies to employ a licensed pharmacist. In some countries—for example, Egypt and Morocco—the law requires that pharmacies be both owned and managed by a licensed pharmacist. Such laws are not universally observed, however. In some Asian and Latin American countries, pharmacists may rent or lend their licenses to several pharmacies but not work in any of them (241, 319). In fact, in most developing countries drugs are available from untrained pharmacists as well. Trained pharmacists tend to open pharmacies in urban areas. They may then serve as wholesalers to shops in villages that are too small to support a full-fledged pharmacy. In Thailand, for example, village drug sellers may have worked in a pharmacy or for drug companies before opening their own village pharmacies. A trained pharmacist may come periodically— perhaps once a week—to satisfy legal requirements that each pharmacy employ a licensed pharmacist (317).

Pharmacist assistants and clerks may have more contact with customers than pharmacists have. When pharmacists own or operate several pharmacies, clerks at one location may be in charge while the pharmacist visits the others. In contrast to pharmacists, pharmacist assistants and clerks generally have no professional education and may have little formal schooling. Pharmacist assistants may be simply experienced clerks who have been promoted.

Nueva farmacia

*A friendly clerk at the counter and shelves crowded with medicines and other health products characterize pharmacies around the world. Clockwise, from top, are shown pharmacies in Sudan, Peru, El Salvador, China, Mexico, Jamaica, and Kenya.*
*(GEORGE GRIFFENHAGEN, APhA; JHU/PCS; PROFAM; WHO)*

Table 2

## Estimated Numbers of Pharmacies, Pharmacists, and Pharmacy Schools in Selected Developing Countries, 1982–1989

| Region & Country | Ref. No. | Year | Number of Pharmacies[a] | Pharmacies/ 100,000 Population[a] | Number of Pharmacists[a] | Pharmacists/ 100,000 Population[a] | Pharmacy Schools[b] |
|---|---|---|---|---|---|---|---|
| ***AFRICA*** | | | | | | | |
| ***Burkina Faso*** | 329 | 1983 | NA | NA | 51 | 1 | NA |
| ***Cameroon*** | 304 | 1983 | 76 | 1 | NA | NA | NA |
| ***Ghana*** | 64 | Late 1980s | 320/3,000[c] | 2/21[c] | NA | NA | NA |
| ***Kenya*** | 329 | 1982 | NA | NA | 86 | <0.5 | 1 |
| ***Liberia*** | 64 | 1986 | 60/277[c] | 3/12[c] | NA | NA | 1 |
| ***Malawi*** | 64 | 1987 | 10 | <0.5 | NA | NA | NA |
| ***Mali*** | 329 | 1983 | NA | NA | 58 | 1 | 1 |
| ***Nigeria*** | 81 | 1985 | 1,656 | 2 | 2,821 | 3 | 6 |
| ***Senegal*** | 329 | 1984 | NA | NA | 110 | 2 | 1 |
| ***Sierra Leone*** | 329 | 1984 | NA | NA | 14[d] | <0.5[d] | NA |
| ***Swaziland*** | 329 | 1983 | NA | NA | 4 | 1 | NA |
| | 64 | 1989 | 6 | 1 | NA | NA | NA |
| ***Togo*** | 329 | 1984 | NA | NA | 48 | 2 | NA |
| ***Uganda*** | 64 | 1988 | 60/400[c] | <0.5/26[c] | NA | NA | NA |
| ***Zimbabwe*** | 64 | 1989 | 82 | 1 | NA | NA | 1 |
| ***ASIA*** | | | | | | | |
| ***Bangladesh*** | 132 | 1989 | 20,000/40,000[c] | 18/36[c] | 1,600 | 1 | NA |
| ***India*** | 232 | 1989 | NA | NA | 86,262 | 10 | 59[e] |
| ***Indonesia*** | 64 | 1982 | NA | NA | 3,857 | 2 | NA |
| | 329 | 1989 | 15,000[f] | NA | NA | NA | 11 |
| ***Nepal*** | 329 | 1984 | 950[g] | 6[g] | 29[h] | <0.5[h] | NA |
| ***Pakistan*** | 21,94 | 1989 | 15,000[g] | 14[g] | 1,791 | 2 | 6 |
| ***Philippines*** | 246 | 1989 | NA | NA | 8,000 | 1 | 16 |
| ***Sri Lanka*** | 64,94 | 1989 | 718 | 4 | 441 | 3 | 1 |
| ***Thailand*** | 94 | 1989 | NA | NA | 2,650 | 5 | 6 |
| ***LATIN AMERICA & CARIBBEAN*** | | | | | | | |
| ***Argentina*** | 113 | 1987 | NA | NA | 9,443 | 30 | 14 |
| ***Barbados, St. Vincent, St. Lucia*** | 38 | Early 1980s | 60 | 12 | NA | NA | 1 |
| ***Bolivia*** | 249 | 1988 | 775 | 11 | NA | NA | 3 |
| ***Brazil*** | 329 | 1984 | NA | NA | 4,630 | 4 | NA |
| | 64 | 1989 | 18,360 | 12 | NA | NA | 47 |
| ***Colombia*** | 247 | 1982 | 6,000 | 22 | NA | NA | 4 |
| ***Ecuador*** | 64 | 1987 | 1,875/35,000[c] | 19/353[c] | NA | NA | 4 |
| ***Honduras*** | 64 | 1985 | 227/153[c] | 5/3[c] | NA | NA | 1 |
| ***Mexico*** | 64 | 1987–1988 | 13,645 | 16 | NA | NA | 34 |
| ***Peru*** | 329 | 1984 | NA | NA | 4,250 | 22 | 4 |
| | 64 | 1989 | 3,422 | 16 | NA | NA | NA |
| ***NEAR EAST & NORTH AFRICA*** | | | | | | | |
| ***Algeria*** | 329 | 1984 | NA | NA | 706[i] | 3[i] | 1 |
| ***Egypt*** | 59 | Early 1980s | 5,368 | 12 | 16,000 | 36 | 8 |
| ***Jordan*** | 253 | 1989 | 624 | 16 | NA | NA | 2 |
| | 246 | 1988 | NA | NA | 1,000 | 26 | NA |
| ***Kuwait*** | 28 | 1987 | NA | NA | 711 | 38 | NA |
| ***Morocco*** | 64 | 1989 | 1,500 | 6 | NA | NA | NA |
| ***Tunisia*** | 329 | 1986 | NA | NA | 881 | 12 | 1 |
| ***Turkey*** | 329 | 1985 | NA | NA | 11,582[h] | 23[h] | NA |
| | 64 | 1988 | 7,900 | 15 | NA | NA | 6 |
| ***Yemen Arab Republic*** | 329 | 1985 | NA | NA | 107 | 1 | NA |
| ***Yemen, People's Democratic Republic*** | 329 | 1985 | NA | NA | 29 | 1 | NA |

*[a] Registered pharmacies and pharmacists unless otherwise indicated*

*[b] Source: Temple 1989 (290)*

*[c] Registered pharmacies/ unregistered chemical sellers or shops*

*[d] Pharmacists and druggists*

*[e] Excludes about 200 2-year diploma programs*

*[f] In 10 major cities*

*[g] Includes unregistered shops*

*[h] Pharmacists and chemical sellers*

*[i] Private sector only*

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areas. Still, in some countries, particularly in Latin America, the percentage of family planning users supplied by pharmacies is similar in urban and rural areas. It may be that urban pharmacies are convenient to some rural residents, too, because many people travel between urban jobs and markets and the villages where their families live.

Pharmacies also are convenient because they stock many products besides drugs. They can save customers a trip to another store to buy household items such as soap or cosmetics.

■

## Choice of Products

Pharmacists usually offer a choice of family planning products, including condoms, spermicides, and oral contraceptives, and in some cases intrauterine devices and injectables. They also offer a choice of brands. Contraceptive users who like to use particular brands may prefer pharmacies to other sources of contraceptives—clinics or hospitals—that may offer only one brand.

**Condoms.** Condoms made from animal membranes were the first modern family planning method to be sold in pharmacies. By the 18th century they were available in England from apothecaries, chemists, and druggists, although barbers were the main source (173).

Pharmacists became more involved in family planning in the early 20th century, when the demand for contraceptives increased. The invention of vulcanization of rubber in the mid-19th century and the introduction of liquid latex in the 1920s made possible the production of cheap condoms that more men could afford (128). In the US in the late 19th and early 20th centuries, most condoms were sold in pool halls, gasoline stations, and barber shops. Pharmacists kept condoms in drawers and sold them mainly to prevent sexually transmitted disease. Due to poor manufacturing techniques, most condoms were defective or deteriorated in a few months. That changed in the mid-1920s, when a drugstore salesman, Merle Youngs, set up a manufacturing plant for high-quality condoms to be sold only in pharmacies (107).

Currently, in developing countries at least two brands of condoms are available in most pharmacies (231). In Latin America, for example, a typical pharmacy may stock a lubricated and an unlubricated brand and an inexpensive and an expensive brand (218).

Customarily, it has been men who bought condoms from pharmacies. Women also buy condoms, however. In a recent Indonesian survey 30% of men who used condoms said that their wives buy them (137). In the US in the mid-1970s 12% of condom purchasers were women, but by the mid-1980s women bought an estimated 25 to 30% of condoms. Currently, according to industry sources, women buy about one-third of condoms in the US. Many are buying condoms for protection against acquired immune deficiency syndrome (AIDS) (94, 152).

**Spermicides and diaphragms.** Spermicides were the second modern contraceptive widely available in pharmacies. They were first marketed in England in 1885 by pharmacist W.J. Rendell, who invented a soluble vaginal suppository made of cocoa butter and quinine. By the turn of the century almost all community pharmacies in England sold them (173).

Pharmacies in developing countries are less likely to carry spermicides than condoms and oral contraceptives because demand is lower. If they do carry spermicides, they generally have no more than two types, usually a tablet and a suppository. Suppositories are difficult to store because they melt in warm weather.

Diaphragms also were sold and displayed in the windows of English pharmacies at the turn of the century (156). Currently, their market in developing countries is limited, however.

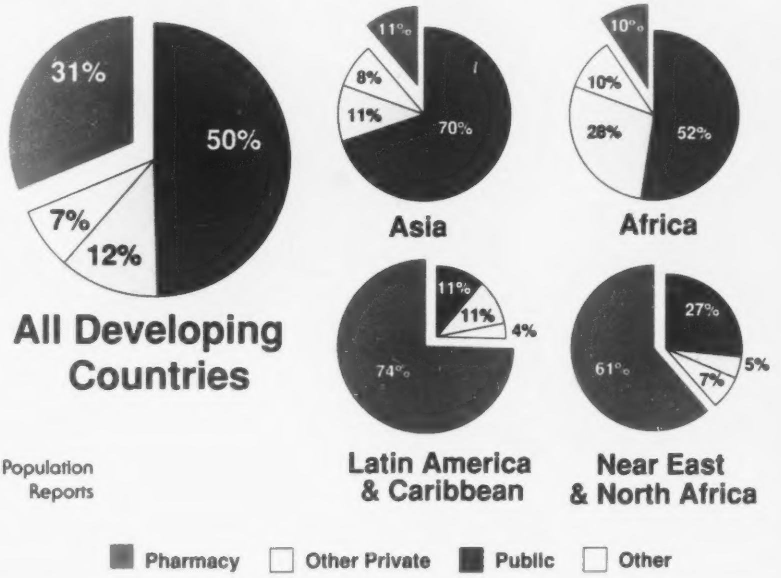
**Oral contraceptives**. The introduction of oral contraceptives in the 1960s increased the roles of both physicians and pharmacists in family planning. In most countries women were required to obtain a doctor's prescription before they could use OCs, and they could buy them only from pharmacies (205). In many countries the prescription requirement has not been observed, however.

Many pharmacies now sell a variety of oral contraceptives and several brands of each type. In Latin America, for example, pharmacies may carry as many as 15 different brands—two or three from each major manufacturer. These may include a so-called standard-dose pill (containing 50 µg estrogen), a low-dose pill (containing less than 50 µg estrogen), 21-day and 28-day cycles, and a multiphasic pill (218).

**Intrauterine devices.** The IUD is sold in pharmacies in Brazil, Colombia, Egypt, Ghana, Honduras, Liberia, Mexico, and Turkey, among others. Women take the IUD to a physician or nurse to have it inserted.

**Injectables**. Injectables are available in pharmacies throughout Latin America. A pharmacist or an assistant often gives

**Figure 1. Users of Condoms, Oral Contraceptives, Injectables, or Vaginal Methods by Source of Supply, Estimates for Developing Areas**



Note: Based on data from Demographic and Health Surveys and other surveys. Excludes China.

injections of hormones or other drugs, including injectable contraceptives. Injectables are sold in a syringe or in an ampule along with a syringe. Pharmacists can charge for the injectable and syringe and for giving the injection. Some sell injectables but do not give injections; the customer takes the injectable to another health care provider (218).

**Implants.** In Indonesia the Blue Circle program plans to distribute Norplant implants through pharmacies (272). Physicians may buy them from pharmacies for their patients, or women may buy them and take them to physicians or midwives who will insert them (207).

■

## Choice of Provider

Especially if pharmacy clients live in a city, they can choose not only among products and brands but also among pharmacies. How do people choose a pharmacy? They tend to shop at pharmacies that are close to their physicians' offices or to their homes. The length of time a pharmacist has been in the neighborhood can be important, too. In a 1970 Colombian study, the first to look at the role of pharmacists in family planning, customers said that they were more likely to ask a druggist for family planning advice if the drugstore had been in the neighborhood for at least a year. Druggists tended to mention customers' confidence in them and familiarity with them in explaining customers' decisions to ask for family planning advice. With other products druggists cited customers' confidence in the drugstore and the level of service as explaining why they asked questions (31). Customers' other considerations are social contact, confidentiality, and the gender of the pharmacist.

**Social contact.** In some places the pharmacist is a family friend. People may go to the pharmacy to chat even when they do not need drugs or medical advice. Pharmacy customers in Egypt and Jordan, interviewed in surveys, commented that the way pharmacy staff treat them affects which pharmacy they choose (279, 280).

**Confidentiality and anonymity**. Some pharmacy customers do not want others to know that they are using contraceptives. They may go to a pharmacist rather than a clinic because they do not have to give their names to pharmacists. Customers also may prefer not to go to a pharmacist they know or to one who lives in the neighborhood. In the 1970 Colombian study customers were more likely to ask for family planning information in the neighborhood drugstore if the druggist lived more than 10 blocks from the store (31).

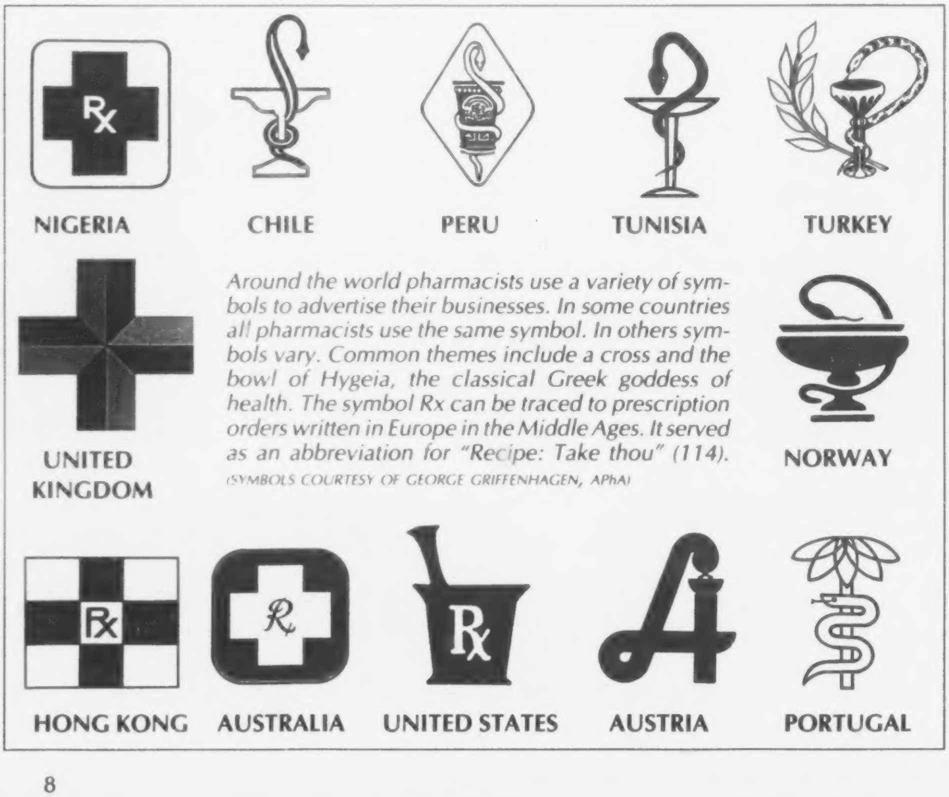
A private consultation room or area in a pharmacy can encourage clients asking for and pharmacists giving advice. For example, in a US university health service pharmacists dispense drugs, including OCs, from consultation rooms, where they explain how to take the drug, describe side effects, and answer questions. When clients come for OC refills, pharmacists ask about side effects or missed menstrual periods. Also, because they keep records of each user's start day, pharmacists can identify the approximately 10% of users who are late getting refills and can advise them what to do (335, 343).

**Gender.** Customers may prefer to talk to a female pharmacist or clerk about contraception. An Egyptian survey found that both young men and women preferred to speak to a female pharmacist about gynecological problems and family planning (280). Pharmacists in Paraguay reported that women prefer to talk to female pharmacy employees about contraception (151).

■

## Free Information and Advice

Many people, particularly the poor and uneducated, go to pharmacies first when they need medical advice (1, 92, 139, 147, 151, 238, 280, 303). Pharmacists' advice is free. Also, their advice is in layman's language, and they allow customers more control over their own treatment and over the client provider interaction than physicians do (178). Some may find even pharmacies intimidating, however, and go to market vendors instead (304).



*Around the world pharmacists use a variety of symbols to advertise their businesses. In some countries all pharmacists use the same symbol. In others symbols vary. Common themes include a cross and the bowl of Hygeia, the classical Greek goddess of health. The symbol Rx can be traced to prescription orders written in Europe in the Middle Ages. It served as an abbreviation for "Recipe: Take thou" (114).*

(SYMBOLS COURTESY OF GEORGE GRIFFENHAGEN, APhA)

Pharmacy customers often ask for family planning information. The 1970 study in Colombia found that 31% of druggists had been asked for advice about family planning. One-half of these said that they were asked often (31). This study was one of several that led to training programs for pharmacy employees in Latin America in the late 1970s (see p. 22).

Also in the early 1970s at least half of pharmacists and other contraceptive retailers surveyed in Turkey, South Korea, and the Philippines said that they had been asked for information about contraceptives (324). More recently, in a 1988 survey of Thai pharmacy staff, including pharmacists, nonpharmacist owners, and employees, 85% reported that customers asked them for information about OCs (229). In Nepal 37% of pharmacists and other drug vendors reported in a 1986 survey that they were asked about contraception (120). In contrast, pharmacists and other retailers surveyed recently in Ghana report that customers rarely ask questions about family planning (292).

While many pharmacists provide family planning advice, some are reluctant or are selective about whom they advise. They may not want to take the time to give advice—for which they are not paid—or they may fear offending or discouraging customers. In a Bangladesh survey in the mid-1980s, only 21% of pharmacists considered advising customers part of their job (70). In the 1988 Thai survey 40% said that they do not usually explain how to use the pill. Some 26% said that they explain pill use only if the customer asks. They thought it impolite to volunteer advice to customers who already knew how to use the pill (229). In Bolivia in the early 1980s, 45% of pharmacists surveyed either did not answer questions about family planning or sent customers elsewhere (56).

■

## Disadvantages of the Pharmacy

There can be two major disadvantages of pharmacies as sources of contraceptives: (1) the price of contraceptives and (2) pharmacists' lack of knowledge about family planning.

**Pricing.** Pharmacy prices of contraceptives vary from country to country (see Table 3) and often from store to store. The pharmacy price is a function of manufacturing price, freight and insurance for imported products, and wholesaler, distributor, and retailer margins. The pharmacists' margin is the difference between the wholesale price and the retail price, expressed as a percentage of the wholesale price. Pharmacists also are concerned with the mark-up on their products—the absolute difference between the wholesale and retail prices. (For example, if pharmacists buy an item for a wholesale price of $.10 and sell it for $.15, their margin is 50%, and their mark-up is $.05.)

**Figure 2. Prices of Oral Contraceptives and Condoms as a Percentage of Monthly Secretarial Salary, Indonesia, Ghana, and Bangladesh, 1989**

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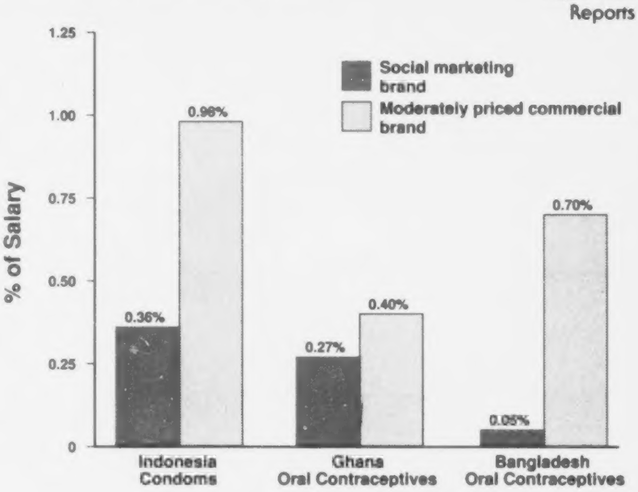

How much of their income do people pay for contraceptives in pharmacies? In a number of developing countries, a person earning a secretary's wages would pay 1 to 2% of her monthly salary for a cycle of OCs or nine condoms, about a month's supply (see Figure 2 and Table 3). Where available, social marketing brands cost less. In Indonesia, for example, a month's supply of *DuaLima* condoms costs 0.4% of a beginning secretary's salary.

The few studies of the effect of price on contraceptive sales have produced mixed findings. Studies in Egypt, South

Population Reports

Table 3

### Contraceptive Prices in Pharmacies and Secretarial Wages in Selected Countries, 1989–1990

| Region & Country | Ref. No. | Price (in US$)<br>OCs (per cycle) | <br>Condoms (per dozen) | <br>Spermicides | Secretarial Wage/ Month[a] (in US$) | OC Price[b] as % of Wage |
|---|---|---|---|---|---|---|
| ***AFRICA*** | | | | | | |
| ***Ghana***[c] | 24, 25 | .14– .35 | .42–2.82 | NA | 49 | 0.5 |
| ***Zaire***[c] | 93 | NA | .40–24.00 | NA | 16 | NA |
| ***ASIA*** | | | | | | |
| ***Bangladesh*** | 125 | .05–.97[c] | .08–.28[d] | NA | 94 | 0.5 |
| ***India***[c] | 125 | .12–.76 | .07–1.64 | NA | 50 | 0.9 |
| ***Indonesia***[c] | 153, 338 | .82–2.26 | .86–2.93 | 1.82 (12 film) | 182 | 0.8 |
| ***Thailand*** | 284 | 1.15 | 1.54 | NA | 100[e] | 1.2 |
| ***Nepal***[d] | 301, 349 | .07–.20 | .11–.29 | .01 (9 tablets) | 35 | 0.4 |
| ***LATIN AMERICA*** | | | | | | |
| ***Brazil***[f] | 62, 63 | 1.37–1.69 | 3.62–7.00 | NA | 76 | 2.0 |
| ***Colombia*** | 311, 348 | .33–.58 | 1.80–3.00 | .72–1.68 (12 tablets) | 130 | 0.4 |
| ***Mexico*** | 24, 176 | 1.03 | 4.33 | .73 | 138 | 0.7 |
| ***NEAR EAST*** | | | | | | |
| ***Tunisia***[d] | 37, 118, 296 | .25 | .10 | NA | 169[e] | 0.1 |
| ***Turkey*** | 186, 297 | .72–1.61 | 1.30–5.22 | NA | 218 | 0.5 |

*NA = Information not available*

*OCs = Oral contraceptives*

[a] *Average or entry-level secretarial job except for Brazil—minimum wage—and Zaire—teaching school in interior*

[b] *Midpoint of OC price range*

[c] *Social marketing and commercial brands*

[d] *Social marketing brands only*

[e] *Public sector*

[f] *Prices and wage for October 1989*

# Social Marketing Encourages Pharmacy Sales

Through contraceptive social marketing programs, pharmacists and other retailers in over 20 countries sell contraceptives at reduced prices. Currently, these programs are the major link between organized family planning efforts and pharmacies. Social marketing programs are providing contraceptives, training pharmacists and pharmacy staff in family planning, and advertising their brands to the public. Many programs work not only with pharmacies but also with other retail outlets such as variety stores, grocery stores, and street vendors.

Social marketing products sell at low prices because programs obtain them free from donor agencies or buy them cheaply in bulk. Social marketing programs then can charge less to distributors and to retailers, who in turn charge customers less. In Ghana, for example, oral contraceptives supplied through the Ghana Social Marketing Program sell for \$.14 (US) per cycle, while two commercial brands sell for \$.21 and \$.35 (25). Retailers make less money on each sale of a social marketing product than on a full-price product. That is, the mark-up on each product is lower. The lower price and the advertising conducted by social marketing programs should bring more sales, however. Thus total revenue to the retailer should be higher, according to social marketing advocates. In addition, some social marketing programs offer retailers a higher-than-usual margin when setting the sales price (see p. 17). Some also offer bonuses—free contraceptives for a quantity ordered—for example, in Egypt a free IUD for each 20 ordered.

*A customer inspects a DuaLima social marketing condom in an Indonesian pharmacy. Pharmacies are a major sales outlet for social marketing products.* (BKKBN)

Currently, most social marketing programs receive support from the United States Agency for International Development (US AID), many of them through Social Marketing for Change (SOMARC), operated by the Futures Group, or through Population Services International (PSI). The first social marketing program began in India in 1967 with support from the Ford Foundation. The program continues today, selling *Nirodh* condoms. It is managed by the Indian government. Another early program began in 1973 in Colombia, when PROFAMILIA, the local family planning organization, began selling condoms and oral contraceptives.

Several arguments for contraceptive social marketing are:

- Existing retail outlets are convenient. They are easier for most people to reach and are open at more convenient hours than family planning clinics.
- When contraceptives are priced at lower than commercial levels, more people can afford them.
- Selling contraceptives, even at a low price, rather than giving them away, helps to cover some of the cost. It also suggests that the products have an intrinsic value and are worth paying for. By selling contraceptives, family planning programs can serve more people.
- Existing skills in advertising, distribution, and retail sales can be utilized.

Social marketing programs sometimes cause controversy. Pharmacists may object if these programs sell through other retailers as well. Physicians may complain that social marketing reduces their role in family planning. Various groups may object to the method-specific public advertising that is necessary to keep up sales. Contraceptive manufacturers may argue that social marketing products are competing unfairly with unsubsidized commercial products. Evaluators note that only about one-third of purchasers of socially marketed products are new users of family planning. The others have shifted from commercial or other sources (336). Also, in some settings multimedia national family planning campaigns that do not involve specially packaged and distributed products can increase contraceptive use at a lower cost (355, 360).

Despite occasional controversies 10 social marketing programs are now more than 10 years old, and many others are also well established. Their experience has shown that social marketing, by working with pharmacists and other retailers, can make family planning more convenient and accessible and can contribute to the growth of contraceptive use.

Korea, and Thailand, for example, found that starting to charge a small fee for contraceptives that had been free had no effect on sales or prevalence (48, 54, 97, 100). When the Thai National Family Planning program stopped charging for oral contraceptives in 1976, however, there was a large increase in the number of new users (150). Contraceptive social marketing programs have found that the cost of contraception for a month should not exceed 1% of monthly income for the low-income groups that constitute their intended customers. Ideally, prices should be similar to those of household items such as soap, toothpaste, and bread (129, 135). Low-priced contraceptives do not always sell better than high-priced contraceptives, however, because customers may associate low price with low quality.

In practice, pharmacy prices of contraceptives depend on many things other than marketing strategy. The prices of pharmaceutical contraceptives—OCs, injectables, and IUDs—depend to varying degrees on government control of pharmaceutical prices, competition, and the political influence of pharmacists and pharmacists' organizations.

Many governments control the prices of pharmaceutical products, intending to keep them affordable and to support local manufacturing. When pharmaceutical companies or importers register drugs, they usually negotiate the price with the government. Also, government regulations may set standard margins for wholesalers and retailers or a maximum price to the consumer. In Egypt, for example, the government allows pharmacists a 20% margin on locally produced drugs and 10% on imported drugs (59, 350). By comparison, in Colombia pharmacists are allowed a margin of about 35% on contraceptives (240). In some countries—Egypt and most Latin American countries, for example—the consumer price is printed on drug packages when they reach the pharmacy (59, 215), making it difficult or impossible for the retailer to charge any more.

In the US, pharmacists' margins are quite low, but their costs can be high. Pharmacists pay $12 or more for a cycle of OCs. They add a margin of less than 5%, however. Pharmacists say that they would lose customers if they added more to the already high price (341).

Government drug pricing policies can affect method choice. In Brazil, for example, to keep drug prices low, the government allows local companies to produce patented drugs without obtaining a license, but it requires that a government commission approve price increases. Because of hyperinflation in Brazil, prices of other goods may double before the government grants a price increase for a drug. As a result, oral contraceptives are less expensive than family planning supplies whose prices are not registered, and therefore OCs are by far the most prevalent temporary method (171).

Pharmacies compete for contraceptive sales with each other and with other sources of supply. In countries that set a maximum price to the consumer, pharmacists can charge less and often do, when wholesalers give them discounts on large orders. Large pharmacies or chains can place larger orders and discount more easily than small, independent pharmacies. Social marketing programs, by offering contraceptives at subsidized prices, also keep prices of all contraceptives low.

Indeed, low-cost or free contraceptives from government clinics or hospitals may drive pharmacists out of the family planning market or restrict their sales to the wealthy. For example, a pharmacist in a town in Lesotho decided not to carry condoms because the local hospital gave them away to prevent AIDS (109). In Indonesia, because of the free contraceptives offered by the National Family Planning Coordinating Board (BKKBN), pharmacists' volume of contraceptive sales has been low, and their market is mainly the wealthy. Thus pharmacists can charge high prices for contraceptives to make as much money as possible on the low volume of sales (272).

How much control do pharmacists have over the prices of contraceptives, particularly oral contraceptives? The answer varies from country to country and depends on pharmacists' organizations and government willingness and ability to enforce drug pricing laws. Pharmacists may have links to the government through spouses or other relatives, particularly in countries where pharmacists are part of the country's elite. In some countries the government bureau handling pharmaceutical price negotiations may be staffed by pharmacists with ties to the private sector or by physicians who own pharmacies. Government pharmacists may work in community pharmacies in the evenings. Pharmacists' organizations in some countries can influence the drug approval process or bring pressure on the government to raise drug prices. Pharmacists' organizations are particularly influential in North Africa. Also, some countries may have price controls but not enforce them. Thus individual pharmacists have more flexibility in pricing oral contraceptives and other pharmaceuticals.

Since condoms are not considered pharmaceuticals, they are not regulated, and pharmacists can set their own prices. They usually keep mark-ups low to maintain high sales volume (231). Competition and in some countries the large number of donated condoms—which are available from other sources but sometimes sold in pharmacies as well—also help to keep prices low.

**Pharmacists' knowledge.** Some pharmacists and pharmacy staff are uninformed about family planning. The few surveys of pharmacists' knowledge of family planning indicate this, as do pre-tests in training programs for pharmacy staff. In the 1970 Colombian study less than two-thirds of pharmacists knew that the IUD and spermicidal jellies and foam were contraceptive methods. Only 26% knew how oral contraceptives work. Only 41% could name at least one side effect or contraindication of OCs (31). In the 1988 Thai survey 34% of pharmacy staff said that there were no contraindications to pill use (229). In a 1986 in-service training program in the Philippines, most pharmacists scored less than 40% on pre-tests of their family planning knowledge, and some answered less than 10% of the questions correctly (148).

The quality of the information that pharmacy staff provide may reflect the location and/or size of the pharmacy. In the Colombian study the most knowledgeable druggists worked in cities and villages in medium-sized drug stores near other drug stores. The least knowledgeable worked in the smallest drugstores, and—in both rural and urban areas—in stores with no other drugstores nearby (31). The Thai study noted that, in order to attract customers, pharmacies located close together offer more complete information than isolated pharmacies (229).

Lack of accurate information is one of the main constraints on a larger role for pharmacists in family planning. Family planning programs have attempted to remove this constraint in various ways.

# Encouraging Pharmacists To Do More

While an estimated 55 million couples now buy their family planning supplies in pharmacies (see p. 3), eight times as many could be pharmacy customers. Worldwide, about 447 million couples need temporary family planning. Hypothetically, all these couples could be buying contraceptives in pharmacies. This number includes 323 million in developing countries and 124 million in developed countries.[a]

In fact, people's income and their access to pharmacies limit who can buy contraceptives there. Thus a more realistic

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[a] Based on the number of married women of reproductive age who are not relying on voluntary sterilization, are not otherwise sterile, are not pregnant or seeking to become pregnant, or have recently given birth. Includes current pharmacy customers.

# What Pharmacists Need To Know About Family Planning Methods

What do pharmacists need to know in order to advise their customers about contraceptives?

## Oral Contraceptives

Pharmacists need to screen women buying oral contraceptives without a prescription. The important screening questions are:

| Question | Suggested Action |
|---|---|
| **1**<br>**Are you pregnant?** | A woman who is pregnant does not need contraception, but she should be urged to seek prenatal care. She can return after the child is born. |
| **2**<br>**Are you breast-feeding?** | A woman who is breastfeeding should be encouraged to use a contraceptive method other than OCs or to use progestin-only OCs. |
| **3**<br>**Do you smoke and are you over 35 years old?** | A woman who answers "yes" to Question 3 or Question 4 should be urged to see a doctor or nurse before starting OCs or before using them for more than a few months. If she wants to see a doctor or nurse first, she should be offered another family planning method to use in the meantime. |
| **4**<br>**Do you have or have you had any major health problem?** | |

Guidelines concerning new and continuing pill users differ from one program to another, and these questions and suggested actions may need to be adapted to suit those guidelines.

With every OC customer, pharmacists need to explain when to start the first cycle of pills. On the first day of menstrual bleeding is a convenient time. Pill users also can start on any other day up to the fifth day after menstrual bleeding starts, but they should use an additional family planning method for the first 15 days if they want complete protection. Pharmacists also must explain when to start subsequent cycles. If there are 28 tablets in a cycle, a woman starts the new cycle on the day after the previous cycle ends. If the cycle consists of 21 tablets, she waits seven days before starting the next cycle. Pharmacists also need to emphasize that pills must be taken every day, at about the same time of day if possible, except during the 7-day gap with 21-tablet cycles. Pharmacists also should be able to answer common questions, for example, "How does the pill work?" and "What if I forget to take a pill?" Social marketing programs have produced posters that remind pharmacy staff of the questions that they should ask potential pill users as well as the answers to questions that customers often ask (see photo, p. 20).

## Condoms

Condom users should:

- Never unroll the condom before putting it on.
- Put on the condom after the penis is erect and before intercourse.
- Put the condom on with the rolled ring on the outside.
- During withdrawal press the ring of the condom against the base of the penis so that it will not slip off and spill semen.
- Store condoms in a dark, dry place away from heat. If properly stored, new condoms will last for years. If left in light or heat for even a few days, however, condoms can deteriorate within a few months.
- Never reuse condoms.

The pharmacy is an unlikely place for a discussion of condom use, however. Often a brochure can provide the information discreetly.

## Foaming Tablets

Pharmacists can tell people buying foaming spermicidal tablets that:

- Tablets should be inserted in the vagina 10 to 30 minutes before intercourse. The tablet should be pushed high into the vagina.
- If there is no ejaculation within an hour after insertion, another tablet should be inserted.
- The woman should not douche for six hours after intercourse.

Again, a brochure might be the best way to provide pharmacy customers with this information.

## Countering Rumors

Pharmacists can help counter false rumors by making their pharmacies family planning information centers. They can:

- Correct misperceptions that they hear from customers.
- Distribute brochures and display posters to help dispel rumors among customers who do not talk to the pharmacist.

Common rumors include fears that various contraceptives cause permanent infertility and that vasectomy causes impotence. Pharmacists, like other family planning providers, should politely explain why these fears are unfounded (see **Population Reports**, *Counseling Guide*, J-36, December 1987, and *After Contraception: Dispelling Rumors About Later Childbearing*, J-28, September-October 1984).

estimate of the number of potential pharmacy customers for family planning is about 211 million. In developing areas the constraints of income and access affect many people: the potential number of pharmacy customers for family planning is perhaps 87 million.[b] In contrast, in developed countries these constraints affect very few.

## Why Work with Pharmacists?

Seeing the potential of pharmacies, family planning programs are working with pharmacists to increase their role in family planning. The need for free or low-cost services for the poor remains pressing. Nonetheless, helping pharmacists can be important for a number of reasons:

- Many people already buy their contraceptives in pharmacies (see p. 3).
- The more sources of family planning information and supplies, the better. The closer people live to a source of contraceptives, the more likely they are to use them (162).
- Every day pharmacy staff have contact with people that other family planning providers never see. These include people who have not yet decided whether to use family planning. They also include people who do not want to go to clinics, such as young people and men.
- Pharmacists give medical advice to many customers, particularly the poor. Pharmacists untrained in family planning can be a source of misinformation about contraceptives. In contrast, pharmacists trained in family planning can counter rumors and promote family planning.
- A relatively small investment in training pharmacy employees can help to turn a pharmacy into a family planning service and information center. Setting up a clinic requires a building, trained staff, and supplies. In contrast, family planning programs need to provide pharmacists and pharmacy staff with just training, brochures, posters, and encouragement.
- Pharmacists working with family planning programs may cooperate with efforts to remove prescription requirements on oral contraceptives.

## Meeting Expanding Need

Increasing pharmacists' role in family planning is part of a larger effort to meet future family planning needs. Around the world contraceptive use is growing. Expanding free services to meet growing demand will be difficult. Duff G. Gillespie and colleagues at the United States Agency for International Development Office of Population estimate that, assuming the United Nations median estimate of population growth, in the year 2000 nearly 350 million developing-country couples will be using contraception, at a cost of $52 to $54 hundred million (US) (106). The further goal of population stabilization early in the next century would require 880 million developing-country couples using family planning by the year 2000, according to an estimate by the Population Crisis Committee. The annual cost of this level of contraception would be $105 hundred million. By comparison, about $32 hundred million is now being spent annually on family planning in developing countries, and only 17% of that comes from the consumers themselves. About 63% comes from developing-country governments, and about 20%, from foreign donors (222). Clearly, people will need to be encouraged to pay whatever they can afford for their own family planning.

One place where this realization has affected program development is Indonesia. The National Family Planning Coordinating Board (BKKBN) supplies free contraceptives through a nationwide network of health and family planning clinics. Realizing that it could not afford to provide contraceptives to the growing number of users—an additional 800,000 each year—BKKBN is fostering the idea that individuals, rather than the government, are responsible for family planning. As part of this strategy, BKKBN launched the Blue Circle program in 1988. In addition to easing the burden on public clinics, the program is intended to increase contraceptive use in cities, where people commonly rely on private health care providers. The program initially promoted physicians and midwives as sources of OCs, IUDs, and injectables and later began promoting pharmacies, private hospitals, and clinics as well. Blue Circle contraceptives are less expensive than commercial brands because manufacturers charge the program less, and pharmacists add less than their usual margin of 30 to 40%. BKKBN hired a local pharmaceutical company, PT Mecosin KB, to coordinate the campaign, and a private advertising firm is handling promotion (272, 287).

## Constraints

Family planning programs have demonstrated that pharmacists can contribute more to family planning if they have help to overcome several constraints:

- **Low sales volume.** Contraceptives are a small part of pharmacists' business. Sales volume is much greater for antibiotics, vitamins, and cold and cough remedies. Pharmacists need assurances of high volume before they will stock more contraceptives.
- **Low mark-ups.** Contraceptives are inexpensive products. Pharmacists make little on each sale and may need higher margins than usual as an incentive to stock more contraceptives.
- **Stock outs.** In some places contraceptives may be sporadically out of stock in pharmacies because of logistic or foreign-exchange problems.
- **Prescription requirements.** Although not universally enforced, prescription requirements may limit the number of customers, especially where there are few doctors.
- **Lack of knowledge about family planning.** Without thorough knowledge of family planning, pharmacists are limited in their ability to advise their customers.

Currently, contraceptive social marketing programs play the leading role in helping pharmacists to sell more contraceptives and to advise customers more fully and accurately.

## Increasing Sales Volume

Advertising and promotion are essential to increasing pharmacists' contraceptive sales. Family planning associations, governments, and contraceptive social marketing programs, by promoting family planning generally and contraceptive brands specifically, have increased pharmacy sales and overall contraceptive use. They have promoted family planning and contraceptives:

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[b] In these estimates rural residents are assumed to lack access to pharmacies except for a number proportional to the percentage of rural contraceptive users now supplied by pharmacies, as reported in Demographic and Health Surveys. Also, since income data are not available for many countries, women with no education are assumed to be too poor to buy from pharmacies except for a number proportional to the percentage now supplied by pharmacies.

- To the public through the mass media,
- To customers at the point of purchase, and
- To physicians and other health care providers.

**Mass media advertising**. All social marketing programs use mass media to promote sales of new contraceptives and then to maintain sales of established products. A variety of approaches have been successful for introducing new products. For example, when Egypt's Family of the Future social marketing program introduced IUDs and injectables into pharmacies in 1984, the program began by arranging radio and television appearances for academic authorities on contraception, who discussed these methods. As a result, women were requesting the IUD and injectables from pharmacists even before the program had begun to distribute them (234). A very different approach succeeded in the Dominican Republic. The social marketing program introduced its version of *Microgynon*, a low-dose pill, with a television commercial featuring a well-known singer, Vickiana. The commercial mentioned that the pills sold for 3.9 pesos a cycle. Pharmacists reported that customers asked for "Vickiana's pill" or "the 3.9 peso pill." In Indonesia newspaper, magazine, and radio advertising of *DuaLima* condoms featured a small middle-class family to convey the idea that condoms are good for the family. Advertising on the radio included a catchy song about *DuaLima*. A test of the campaign among men age 15 to 49 in the lower socioeconomic classes found that it created a high level of awareness: without prompting by the interviewer, 55% of the men surveyed mentioned *DuaLima* (72, 137).

To maintain sales, continuous advertising is necessary. Social marketing programs in Bangladesh, Honduras, and India have documented that sales volume changes with the level of mass-media promotion (260). As a product becomes better known, the advertising approach changes, and a well-known brand can often be advertised by its name or logo alone. This is now the case with *Nirodh* condoms in India and *Raja* condoms in Bangladesh, for example.

*Displaying contraceptives reminds customers of the product and helps boost sales. A countertop display in an El Salvador pharmacy shows an assortment of family planning methods.* (PATRICK COLEMAN, PCS)

Government restrictions often make public advertising difficult. In some countries, however, social marketing programs have been able to work with governments to avoid restrictions on advertising of contraceptives or of pharmaceuticals. For example, to help the social marketing program in Mexico, the government changed a regulation to allow advertising of contraceptives by brand name. While the program could advertise the brand name of the contraceptive—in this case *Protektor*—it could not identify the product explicitly as a condom. In Indonesia policies establishing the national family planning program have superseded laws prohibiting the dissemination of information about contraceptives (137). In general, access to radio is easier than access to television.

Promotion of family planning in general can complement brand-specific advertising. For example, in the 1970s the Indian government promoted the 2-child family at the same time that the social marketing program advertised *Nirodh* condoms. The two campaigns are credited with contributing to sales of about 250 million *Nirodh* condoms a year (123).

Entertainment, such as songs or soap operas, with a family planning message can also increase contraceptive sales. The "enter-educate" approach worked well in Mexico, for example, where a soap opera broadcast in 1977 and 1978 portrayed family planning as a way to achieve family harmony. Contraceptive sales, which had increased 7% in the preceding year, jumped by 23% when the soap opera was on the air (344).

Some family planning advertising has mentioned pharmacists or urged audiences to go to a pharmacist for family planning information. The Bangladesh Social Marketing Program goes further. It portrays pharmacists in radio advertising (161). So has radio advertising in Colombia. Pro-Bienestar de la Familia Colombiana (PROFAMILIA), with help from the Futures Group and Johns Hopkins University Population Communication Services (JHU/PCS), sponsored a 5-month radio advertising campaign in 1984 and 1985 to promote condom sales among men under age 35 in the city of Cali. In one of four radio spots a druggist sold a man a box of condoms and then discussed with the clerk the man's responsible attitude toward family planning. Surveys found that the campaign improved the image of the condom and increased by 50% the percentage of men reporting that they bought condoms. The druggist spot was the best recalled. Some 37% of survey respondents remembered seeing it (143, 332).

In contrast to contraceptive social marketing and other family planning communication programs, for-profit manufacturers and distributors of contraceptives promote most of their products mainly through personal contacts between their sales representatives, or detailers, and pharmacists and physicians. Manufacturers and distributors have done little mass-media advertising because of prohibitions on brand-name advertising of pharmaceuticals to the public in most countries. In addition, profits from contraceptives usually are not enough to pay for advertising.

**Point-of-purchase promotion**. Most social marketing programs provide pharmacists with point-of-purchase promotional materials—displays, brochures, and posters. For example, in Nepal lighted signs in pharmacies and other retail stores attract attention to the social marketing project's *Dhaal* condoms. The project also ran a contraceptive display contest with cash prizes (175, 321). The Jamaican social

# Displaying Contraceptives Boosts Sales

To display or not to display—that is the question for many pharmacists, particularly with respect to condoms. Spermicides are usually openly displayed. Condoms and oral contraceptives, however, are generally kept in a drawer or behind the counter. Most social marketing programs encourage pharmacists to display contraceptives. They may give them display racks or countertop dispensers to make display easier.

Displaying condoms increases sales. In a US survey 58% of pharmacists who put condoms in open displays reported increased sales, with the increase averaging 37%. One pharmacist reported that he lost sales to vending machines when he did not display condoms (152). In Mexican supermarkets condom sales almost doubled when condoms were moved from shelves to a display space next to the cashiers. Also, the number of condoms stolen decreased (356).

Displays increase sales largely because they remind shoppers of the product. Also, they save customers the embarrassment of having to ask for condoms, and they save clerks the embarrassment of having to get them (38).

Displays of condoms have several other benefits:

- They appeal to women, who are accustomed to buying spermicides from self-service displays. Because women buy many of the condoms sold in the US, some drugstores sell condoms both from an isolated display and from one next to female health care products (7).
- They allow customers to choose from several types or brands.
- They may provoke reactions from some customers and give pharmacists the opportunity to talk about family planning. In the US survey, however, pharmacists reported that most customers expressed no reaction, either positive or negative, to the contraceptive displays.

The chance to increase sales may reduce some of the objections that pharmacists' raise to contraceptive displays. These include:

- Lack of space.
- Fear of offending or embarrassing their customers, or their own embarrassment. Government support for and promotion of family planning have decreased embarrassment and objections to pharmacy displays. The epidemic of acquired immune deficiency syndrome (AIDS) and the much-publicized role that condoms can play in preventing the transmission of the virus that causes AIDS also have encouraged condom displays.
- Fear of theft, which may occur because customers are too embarrassed to pay for condoms. Theft is less a problem in small pharmacies than in large ones because staff can more easily monitor the store. Some pharmacists may say that they are afraid of theft when in fact they are embarrassed to display condoms (218).

### Tips to Set Up an Effective Contraceptive Display

Adapted from Dranchuk 1976 (75)

- Contraceptive displays should be separate from other displays and easily identified. They should not be mixed with other products such as douches or baby care products.
- Posters can inform customers that contraceptives are available in the pharmacy and can direct them to the display.
- A well-maintained display should include several types of all available contraceptives, particularly brands that have been advertised by pharmaceutical companies or social marketing programs. Basal body temperature thermometers for Natural Family Planning and pregnancy test kits and diaphragms should be available where there is a demand.
- Displays should be neat and should be kept replenished. They also should contain literature for customers, if it is available.
- The display should be located near where customers pay for purchases. Thus shy customers will be able to pay for their contraceptives quickly. Also, the pharmacy staff will be able to monitor the display and prevent pilferage.

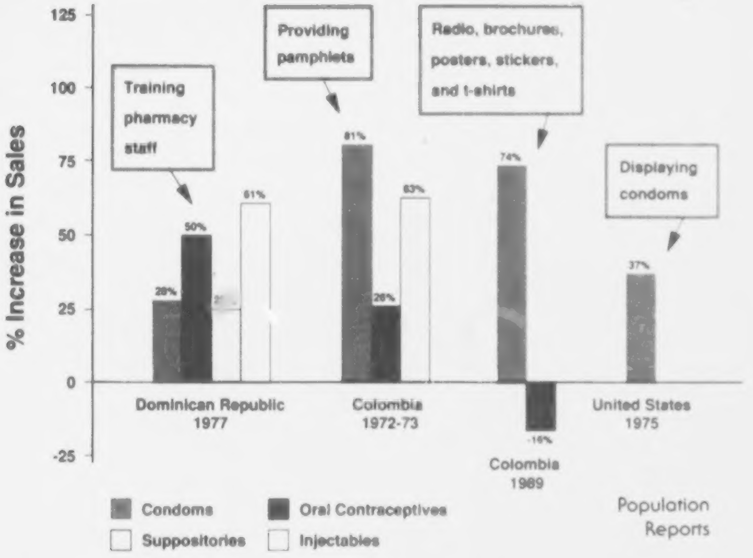
marketing program provides pop-up dispensers for *Perle* oral contraceptive packets (320). In Belize counter cards and information sheets in pharmacies encourage customers to ask questions about contraception and sexually transmitted diseases, particularly acquired immune deficiency syndrome (AIDS) (230).

Several social marketing programs have produced brochures for pharmacy customers. For example, since 1987 Pakistan's social marketing program has distributed 100,000 brochures about its *Sathi* condom for both pharmacists and their customers. The brochures are part of a countertop display (67, 124, 137). In Colombia PROFAMILIA, again with help from JHU/PCS, produced two customer brochures and distributed 25,000 of each—the majority to pharmacies—during a 6-month campaign in 1989. The brochures explained the social marketing program condom and oral contraceptive (225, 226, 228).

Where most pharmacy customers are literate, brochures can increase contraceptive sales and customers' knowledge. In a study done in Colombia in the early 1970s, offering pamphlets in drugstores increased sales of condoms by 81%, of spermicidal suppositories by 63%, and of oral contraceptives by 26%. In the study 60 drugstores monitored their contraceptive sales for two months. Half of the stores then received pamphlets describing each of the methods, and sales in all 60 drugstores were monitored for another two months (33). A US study of the effectiveness of the required oral contraceptive patient package insert found that 61% of women receiving an insert had read it, although few remembered much of the detailed information that it provides. Some 12% of the women contacted a pharmacist for more information (248).

In small pharmacies brochures may reach more customers than posters do. In the competition for wall space, family

**Figure 3. Increasing Pharmacy Sales of Contraceptives: Effects of Four Different Promotional Efforts**



Sources: Dominican Republic 1977—Rizo 1979 (238); Colombia 1972-73—Bailey & de Zambrano 1974 (33); Colombia 1989—Negrette 1990 (192); United States 1975—Kushner 1976 (152)

*Experience in several countries shows a variety of ways to increase contraceptive sales in pharmacies. OC sales in Colombia decreased despite promotion because a price increase required removing the packages from the shelves for relabeling.*

planning posters may be covered over by posters for other products. Printing large numbers of brochures can be expensive, however, and, like the contraceptives themselves, they must be kept in stock and displayed.

In some countries pharmaceutical companies distribute give-aways to the public through pharmacies. They may print the name of their contraceptives on calendars, notebooks, pens, handkerchiefs, or mirrors and give them to pharmacists, who pass them on to their customers (163, 322).

**Promotion to physicians and other health care providers.** The pharmacist's market for some contraceptives—particularly the pill, IUD, and injectable—depends partly on prescriptions or recommendations from physicians and nurses. Pharmaceutical companies promote oral contraceptives by sending detailers to gynecologists and general practitioners and by advertising in medical journals. Promotion to physicians is particularly important where oral contraceptives are available only by prescription and where pharmaceutical companies are prohibited from promoting directly to pharmacies.

Winning physicians' cooperation and approval can be important. They may object to advertising that promotes the sale of oral contraceptives from pharmacies and other retail outlets. In Barbados, for example, some physicians contended that the mass-media advertising for the social marketing program's pill, *Perle*, implied that it did not require a physician's prescription. As a result, some did not prescribe *Perle*, and, according to social marketing program staff, pharmacists hesitated to recommend *Perle* because they saw few prescriptions for it (41).

Regardless of prescription requirements, social marketing programs often address physicians when promoting new products. In Egypt, for example, Family of the Future invited physicians to a seminar where authorities explained the use, side effects, and contraindications of the IUD and injectable. After the seminar medical detailers from Family of the Future visited the physicians to answer questions and distribute brochures and counseling guidelines (234).

Promotion to other health care providers—for example, community or traditional health workers—also may be productive. In Bangladesh rural medical practitioners were telling their clients that oral contraceptives were responsible for many of their illnesses. Following visits from social marketing project detailers to about 30,000 rural medical practitioners, many changed their attitudes, and some began to sell OCs. These visits and other meetings with these practitioners helped to increase OC sales (68, 251).

Promotion to health care providers should inform them of the effectiveness and advantages of barrier methods of contraception. Some providers are reluctant to advise clients to use barrier methods because they are not as effective as the pill or IUD. Some providers may be prejudiced in favor of female methods and against condoms. Others may be embarrassed to discuss methods that must be applied to the genitals, or they may think it a waste of time to suggest a method that is available over the counter (353, 359). In fact, barrier methods may be best for some clients—in particular, condoms for those who may be exposed to the virus that causes AIDS or to other sexually transmitted diseases. Providers should be urged to refer to pharmacies clients who choose these methods and can afford to pay for them.

FARMACIA APOQUINDO

*An urban pharmacy in Chile. Convenience, product choice, confidentiality, and free advice are the main reasons people buy contraceptives in pharmacies.* (GEORGE GRIFFENHAGEN, APhA)

■

## Increasing Pharmacists' Revenue

Unless sales volume is substantial, contraceptives with low unit prices require higher than usual margins so that sales will generate enough revenue for the retailer (137). Therefore some social marketing programs offer higher margins to encourage pharmacists to carry new contraceptives or new brands. For example, in the Nepal social marketing program retailers take an 18% margin on *Gulaf* oral contraceptives, which amounts to $.011 (US) per cycle (301). By comparison, their typical margin is 10 to 15% (349). In Bangladesh the social marketing program allows retailers a maximum mark-up of $.003 (US) per *Raja* condom. This amounts to a 39% margin (124). Retailers' usual margin is about 15% (342).

A lower margin may be acceptable on more expensive contraceptives. In Egypt pharmacists were willing to carry the Family of the Future's 3-month injectable, priced at £E 2 (US$2.50 in 1984), with a 10% margin. The price was set on the basis of focus-group discussions with consumers, physicians, and pharmacists (234).

In addition to high margins pharmaceutical companies and social marketing programs offer pharmacists bonuses and credit. The Nepal social marketing program gave retailers a free condom for every condom that they bought (260). Family of the Future in Egypt gives pharmacists one IUD for every 20 ordered, and 60 days to pay (234, 350).

Although most pharmacists need higher volume and margins as an incentive, some are willing to do more for family planning as a community service or as a contribution to a national effort (49, 324). For example, in Indonesia the intense national consumer advertising by the Blue Circle campaign has encouraged many pharmacists to participate (286). This suggests that effective mass-media promotion of family planning can have a "halo" effect, increasing sales and participation by pharmacists.

■

## Preventing Stock Outs

Import restrictions, lack of foreign currency, or ineffective local distributors have led to shortages, or stock outs, of contraceptives. Stock outs force contraceptive users to shop

# Lessons Learned About Pharmacists and Family Planning

### Lessons for Policy-Makers

- Mass-media advertising of contraceptives, both generically and by brand name, attracts family planning users to pharmacies.
- Mass-media promotion of family planning generally—when it is well-planned and designed, uses professional talent, and produces entertaining material—can increase contraceptive sales.
- Nonphysicians, including pharmacists, can dispense oral contraceptives without doctors' prescriptions to increase the availability and use of oral contraceptives without increasing risk to women's health.
- Pharmacists and pharmacy clerks can be an important source of contraceptive information, but they need special in-service training to improve their knowledge and counseling skills. Also, specific family planning courses in pharmacy schools would be an important step.
- Training for other health care providers should emphasize that barrier methods are a good choice for some clients and should encourage clients to go to pharmacies for the contraceptive supplies sold there.
- Family planning programs can recover some costs through contraceptive social marketing—selling inexpensive contraceptives through pharmacies and other commercial outlets.

### Lessons for Pharmacists

- Displaying contraceptives can boost sales. Displays make sales easier and less embarrassing for both customer and pharmacy staff.
- Courteous treatment attracts customers. Many customers choose pharmacies based on the way that pharmacy staff treat them.
- Providing family planning information to customers can increase contraceptive sales. Sales have grown when pharmacies have begun to distribute brochures or after staff have attended family planning courses.

### Lessons for Pharmacist Training Programs

- Pharmacy clerks should be included in family planning training programs. They have more contact with customers than pharmacists or pharmacy owners. Separate courses for clerks and pharmacists may be preferable.
- To counter the problem of staff turnover, several staff members and the longest-term employees can be trained, and training courses can be offered repeatedly so that new employees can attend.
- Refresher courses should be offered for graduates of training programs.
- Courses should be scheduled to avoid conflicts with vacations and important sporting events.
- Training not only in family planning but also in oral rehydration therapy and other aspects of maternal and child health can correct misinformation among pharmacists and strengthen their role in public health.
- Using participatory training techniques—for example, role-playing and games—can be especially effective in increasing trainees' knowledge.
- Repeated visits to talk with pharmacists are effective ways to encourage them to promote a product, as pharmaceutical company detailing demonstrates.
- Providing participants with diplomas and reference materials to take home enhances their status and credibility as sources of family planning information at the pharmacy.
- Programs can be evaluated with pre- and post-tests of trainees' knowledge and attitudes, with measurements of contraceptive sales before and after training, and with observation visits after training, when program staff posing as customers can assess communication in the pharmacy.

# Profile of a Neighborhood Pharmacy in Egypt

Adapted from an interview in Sukkary 1982 (280)

## The Owner

Dr. Hussein (a Doctor of Pharmacy) graduated from a 5-year Egyptian pharmacy school program in 1973. He was drafted into the army and decided, when he got out, that he wanted to start his own pharmacy. He first worked at night in a friend's pharmacy. After two years he borrowed £E 10,000 (US$25,500 in 1976) from his mother to buy a license and a pharmacy in a suburb of Cairo. He also bought £E 5,000 (US$12,750) worth of drugs. For the first two years he had to continue to borrow money from relatives.

The first year he worked alone for 10 or 11 hours a day. After he married, he hired a salesboy to help with customers and a veterinarian to dispense drugs in the late afternoon and evening. Nonetheless, his hours are still long. Dr. Hussein works from 9 a.m. to 3 p.m. with the salesboy. The veterinarian relieves him at 3:00. Dr. Hussein returns to the store at 7 p.m., and the three work until midnight.

The pharmacy is crowded with drugs, chairs, a refrigerator, a scale, a desk, and a wooden counter. One of the drawers of the desk is labeled "narcotics." At the time of the interview, five morphine injections were stored in it. Condoms, oral contraceptives, and spermicides, along with various other supplies, were kept behind the counter. A small, crowded back room contains a sink, boxes, a space for giving injections, and drugs stored on shelves.

The pharmacy is busiest around 8 p.m. when, according to Dr. Hussein, people arrive with prescriptions from their doctors. "These people sometimes go downtown to see their physicians," he comments, "but they still come here to their neighborhood pharmacy to fill their prescriptions. They trust my pharmacy because I keep a good supply of all the needed drugs. This is the secret of my success: I predict needs, I stock supplies, I read the market, and I invest most of my earnings in the pharmacy.... Yes, being nice to clients, being sympathetic, being interested, being honest all help. But the secret is to provide them with what they need." Dr. Hussein noted that in the evening, "We do not chat and joke a lot like in the mornings, when we have more time to talk to clients and listen to their problems."

Dr. Hussein greets a man: "Hello, Abou Ali, how are you?" He lifts the counter and steps out to kiss Mr. Ali. "He is my best customer," he says to the interviewer. "Would you like tea, coffee, or something cold? Go, kid, and get us something cold for our visitors."

Mr. Ali buys 10 bottles of vitamins, 3 boxes of antibiotics, 2 big bottles of perfume, 3 kinds of toothpaste, 10 boxes of tissues, 4 rolls of toilet paper, 4 boxes of shaving cream, 6 bottles of cough medicine, and several boxes of pain-killers. Dr. Hussein comments, "[Mr. Ali] is one of my best clients. He comes in once a month and buys drugs like crazy. I can never figure out why he buys all these drugs. I know the vitamins with male hormones are for him; many people here have sexual problems because of drug problems, so they use these male hormone pills. Cough medicine is used here by drug addicts as a substitute for drugs."

## The Salesboy

Anwar is the fifth son of a family of nine in Upper Egypt. His father was a farm laborer before being disabled by schistosomiasis. Anwar attended school for one year but left because his family could not afford the shoes, supplies, and clothes. Between the ages of 8 and 10, he worked as a farm laborer, visiting his family on holidays. His family depended on his salary for food and for medications for his father. At age 10 he went to work in Dr. Hussein's pharmacy. Dr. Hussein sends Anwar's pay to his family, buys him clothes, and gives him spending money. "He is like a son to me," says Dr. Hussein.

Anwar's first jobs were to clean the pharmacy and run errands. He learned the location of the drugs in the shop and can identify them by their packaging and colors. "He has learned a great deal," says Dr. Hussein. "He recognizes all the drugs; he is starting to prescribe medicine. Of course, I do not leave him alone; he is always with a pharmacist. It is too bad he does not know how to read well."

## A Customer

Hassan is a steady customer in Dr. Hussein's pharmacy. He is an auto mechanic earning about £E 7 (US$7 in 1982) a day. He is married and has four children. He can neither read nor write, and he would like to send all his children to school. He has high blood pressure, digestive problems, and back pain. He goes to Dr. Hussein's pharmacy at least once a day to buy aspirin, digestive pills, and medicine to control his blood pressure. He also takes pills with vitamins and male hormones to restore the sexual potency that he feels he loses because of the blood pressure medicine. Hassan buys drugs on credit at the pharmacy and is sure to pay the debt so that he will not be denied further credit. He says, "I went to the doctor only once for my blood pressure. The pharmacist is a good man; he recommended some drugs for my back and stomach. I keep a good supply of my back drugs because I cannot live without them. Our pharmacist is a very good doctor."

Hassan buys from Dr. Hussein because he respects him: "I go to him because he is kind and skilled. He also jokes a lot, and I love to joke." Hassan fixed Dr. Hussein's car free in return for all the favors he had done for him. He first met Dr. Hussein when a helper in his shop cut his hand. "I rushed to this new pharmacy because it was close, and I asked for help. He came with me, carried the boy to the pharmacy, and administered first aid. Since then, I never buy medicine from anybody else."

elsewhere, to switch to other methods, or even to discontinue family planning.

Family planning programs can help prevent shortages of contraceptives by urging governments to remove import taxes on contraceptives, by facilitating the registration of new contraceptives by national drug regulatory agencies, and by promoting local or regional manufacture of contraceptives. Local manufacturing is not always preferable to importation, however, particularly when the international supply of a contraceptive is plentiful and the local factory is unreliable.

Many social marketing programs can provide a reliable supply of contraceptives because their products are donated by the United States Agency for International Development (US AID). Social marketing programs usually put their own packaging and labeling on these products and distribute them through existing channels—local distributors or pharmaceutical companies—or, less often, they set up their own distribution systems, as was done in Bangladesh, Egypt, Nepal, and Sri Lanka. Using an existing distribution system is generally preferable because it costs less than setting up a system. Distributors vary, however, in their commitment to supplying contraceptives. Low prices and low margins discourage some. Others cooperate despite the low margin because they value having a new product line, they want to be helpful, or they benefit from working with developed-country organizations.

■

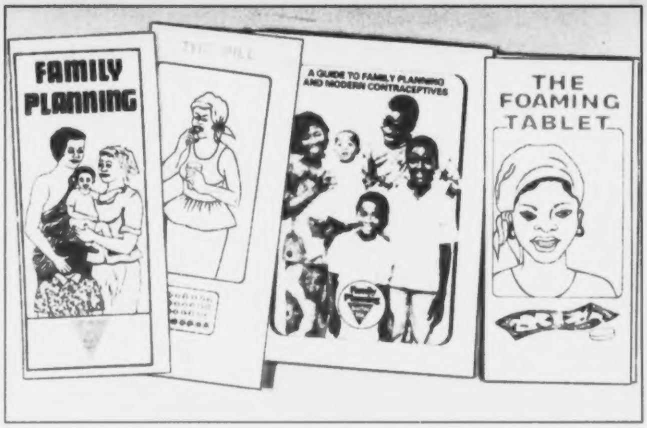
## Removing Prescription Requirements

Many countries have requirements for a doctor's prescription that are not enforced. Even so, such requirements can leave pharmacists uncertain and may inhibit sales of pharmaceutical contraceptives such as oral contraceptives, IUDs, and injectables.

The intent of a prescription requirement for OCs is to ensure that women using them have the approval of a physician. The requirement assumes that a physician's expertise and physical examination are needed to identify women who have contraindications to OC use.

Several studies have questioned the usefulness of physicians' examinations, however. For example, a 1982 study in Matamoros, Mexico, found that the health of OC users who had obtained pills through a community-based distribution program was similar to that of OC users who had been examined by a doctor or nurse (334). A 1975 study of 1,021 women requesting OCs from a London family planning clinic found that 51 were denied OCs—44 because of their medical histories, and only 7, as a result of an examination (130). Both studies suggested that physical examinations were not necessary. Instead, prescription requirements restrict distribution to women who have access to physicians and thus deny other women an effective means to avoid the significant health risks of pregnancy. In any case, the health risks of OCs are slight for most women (see **Population Reports**, *Lower-Dose Pills*, A-7, November 1988).

Of the few women who should not use OCs for health reasons, most can be identified by several simple questions. These questions can be asked—and their answers assessed—as readily by a pharmacist, pharmacy staff, or other health care worker as by a physician. For pharmacy workers these screening questions have been included in brochures and posters and on the back of point-of-purchase displays (see box, p.12).

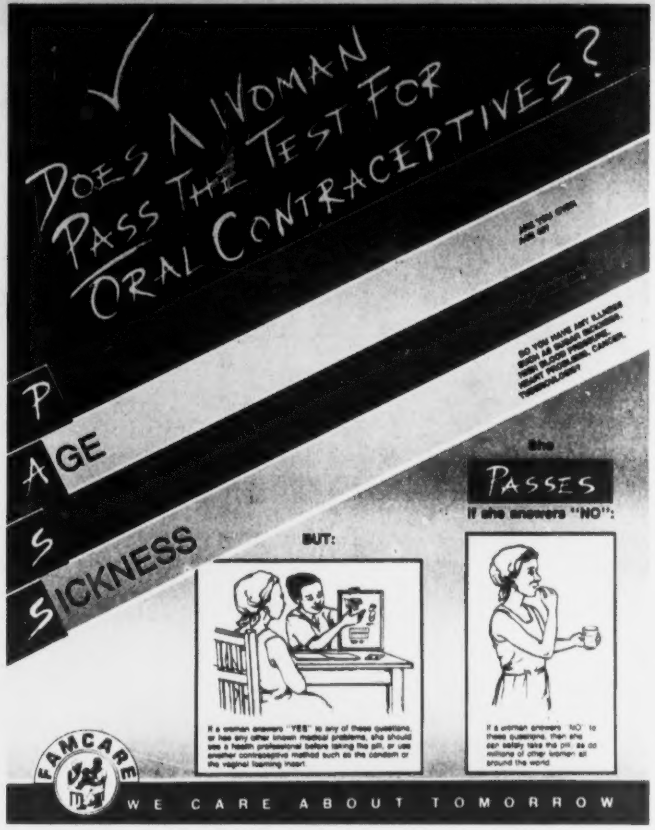

FAMILY PLANNING
THE PILL
A GUIDE TO FAMILY PLANNING AND MODERN CONTRACEPTIVES
THE FOAMING TABLET

*Brochures can inform pharmacists and other providers, and they can provide customers with instructions and advice. These brochures were produced by the Ghana Ministry of Health (MOH) with help from JHU/PCS or by the MOH and the Ghana Social Marketing Program with assistance from JHU/PCS and SOMARC.*

Many countries have dropped or eased prescription requirements. These changes, which have focused on OCs, include:

- Eliminating prescription requirements completely, as in Bangladesh, the Dominican Republic, and the Philippines, among others. In Papua New Guinea in 1988 the Department of Health began allowing pharmacists to sell a number of drugs, including oral contraceptives and injectables, without prescriptions (236). In Ghana the government has agreed to allow pharmacists and chemical sellers to sell OCs without prescription if they have been trained by the social marketing program. If this trial is successful, the government may amend the law requiring prescriptions for OCs and allow them to be distributed without prescription throughout the country (270).
- Permitting health care providers in addition to physicians—for example, nurses and midwives as well as pharmacists—to distribute OCs, as in Colombia, Sri Lanka, and Turkey.
- Permitting other health care providers to provide an initial supply of OCs but requiring users to see a physician within three to six months, as in Barbados and India.
- Requiring physicians to prescribe the first cycle and permitting nonphysicians to resupply, as in Brazil, Indonesia, and Morocco (138).

Removing prescription requirements has raised objections from some pharmaceutical companies, physicians, and pharmacists. Pharmaceutical companies are concerned that the courts might hold them responsible if a user had not seen a doctor and later developed health problems. Physicians and ministries of health in some countries are concerned about women taking the pill without a physician examining them for contraindications or monitoring them for side effects. Pharmacists may object to removing prescription requirements because they fear competition from other vendors. They may cooperate, however, if they can serve as wholesale outlets for other retailers. In an operations research project in Ghana, for example, pharmacists have been willing to supply market traders with contraceptives for resale (318).


DOES A WOMAN PASS THE TEST FOR ORAL CONTRACEPTIVES?
P
AGE
S
SICKNESS
DO YOU HAVE ANY ILLNESS SUCH AS SUGAR SICKNESS, HIGH BLOOD PRESSURE, HEART PROBLEMS, CANCER, TUBERCULOSIS?
She
PASSES
If she answers "NO":
BUT:
If a woman answers "YES" to any of these questions, or has any other known medical problems, she should see a health professional before taking the pill, or use another contraceptive method such as the condom or the vaginal foaming insert.
If a woman answers "NO" to these questions, then she can safely take the pill, as do millions of other women all around the world.
FAMCARE
WE CARE ABOUT TOMORROW

*A Liberian poster reminds pharmacists of four screening questions to ask women who want oral contraceptives. Such posters help to reinforce training programs. Training programs need to recruit the pharmacy personnel who have the most contact with customers.*

■

## Improving Pharmacists' Knowledge

Well-informed pharmacists can promote contraceptive use among their customers. They can urge current users to continue or to switch to more effective methods, and they can encourage nonusers to start family planning.

To improve the information that pharmacists give customers, a number of family planning programs, particularly social marketing programs, have:

- Distributed brochures, posters, and other informational print materials to pharmacists; and
- Trained pharmacy staff.

**Print materials for pharmacists.** Brochures, manuals, and posters for pharmacists describe the various contraceptive methods and, for oral contraceptives, list screening questions.

Programs in several countries have produced brochures for pharmacists. For example, the Bangladesh social marketing program distributes a pamphlet covering all family planning methods and a separate pamphlet with instructions for taking oral contraceptives. In Colombia PROFAMILIA produced and distributed 2,500 pamphlets for druggists during the 6-month campaign in 1989, along with 50,000 brochures for customers (see p. 15). The pamphlet explains reproductive physiology and anatomy and the various contraceptive methods (226, 227). Manuals have been distributed to participants in pharmacist training programs (see p. 23). Pharmacists interested in family planning have written articles for pharmacists' professional journals.

Posters for pharmacies also have been produced in a number of countries. For example, the Liberian social marketing program distributed a pharmacy poster that asks, "Does a woman *pass* the test for oral contraceptives?" (see photo, this page). The word *pass* reminds pharmacy employees to ask women four screening questions concerning Pregnancy/breastfeeding, Age, Smoking, and Sickness. In Ghana a colorful poster for pharmacists includes a similar, 5-point checklist on OC use (103).

**Training.** Since the mid-1970s there have been a number of special family planning training programs for pharmacists and pharmacy staff. They have increased participants' knowledge of family planning and in some cases have demonstrably increased contraceptive sales (see pp. 21–28).

# Teaching Pharmacists About Family Planning

Pharmacists usually learn most about their products from two sources:

- Pharmacy schools and
- Representatives of pharmaceutical companies (called detail men, or detailers).

In the field of family planning another source has been added:

- In-service training programs.

Most pharmacy schools provide only limited training in family planning (127). Pharmaceutical company detailers focus on the specific products that their company sells. Thus, to provide more complete information about contraception, a number of family planning programs have conducted special in-service training for pharmacists, pharmacy owners, and clerks.

■

## Pharmacy Schools

In developing countries there are approximately 335 pharmacy schools offering 4- or 5-year programs leading to a bachelor's degree (290). In India there are also approximately 200 two-year pharmacy programs leading to a diploma in pharmacy (257).

In most pharmacy schools coverage of family planning is slight. Pharmacy schools cover contraceptive methods in courses on pharmacology, therapeutic agents, or public health. Many schools discuss only hormonal methods, usually in pharmacology courses. Some public health courses touch briefly on family planning as a health care intervention. As a result of this limited coverage, most pharmacy school graduates have little specialized knowledge about family planning and contraceptives. This is true in developed countries such as Canada and the US as well as in countries in Africa, Asia, and Latin America and the Caribbean. In Latin America, for example, pharmacy schools emphasize preparing students to work in the pharmaceutical industry and thus focus on chemistry (319). In Canada a 1975 survey of pharmacists found that only 25% had formal instruction in family planning (115). In US pharmacy schools family planning is covered in several courses, but no one course focuses on the subject. Students learn about condoms and other over-the-counter contraceptives during required 2- to 3-month internships in community pharmacies. Pharmacy schools in India teach more family planning than most (see box, this page).

Several organizations, including the World Health Organization (WHO), have convened conferences on the pharmacists' role in primary health care. A number of WHO regional offices have held conferences for pharmacists or pharmacist educators. These conferences have recommended that pharmacy schools teach more about public health, including family planning (85, 219, 315). Most recently, in January 1990, the Pan American Health Organization cosponsored the Pan American Conference on Pharmaceutical Education with the American Association of Colleges of Pharmacy (10). Earlier, in Egypt in 1983, the International Conference on the Role of the Pharmacist in Family Planning drafted the Alexandria Declaration. It recommended: (1) developing standard material for training pharmacy students to advise customers about family planning and (2) consolidating family planning training into a specific pharmacy school course (84). The conference was sponsored by the Family of the Future contraceptive social marketing program. The Family Planning Association of India convened the First National Conference on Pharmacists and Family Planning in 1986. The conference recommended expanding family planning training in both 2-year and 4-year programs to prepare students for family planning counseling (85). So far, these meetings have produced few changes in curricula. Changing curricula is costly, time-consuming, and may have political repercussions (239).

■

## Detailer Training

Many pharmacists obtain product information from pharmaceutical company detailers. Pharmaceutical companies' major investment in product promotion is in the training and support of detailers. Pharmaceutical companies know that, to persuade physicians or pharmacists to prescribe or recommend their products, there is no substitute for repeated visits by detailers. Many studies in developed countries have documented the influence of face-to-face contact on the prescribing practices of physicians (30, 80, 250, 274). Who are detailers, and how are they trained to promote contraceptives?

Pharmaceutical companies hire nurses, pharmacists, physicians, and veterinarians, among others, to promote their products. Most companies require these detailers to have some university education. The content and length of training depends on detailers' initial knowledge of biology, physiology, anatomy, drugs and the drug industry, their skill at sales, and the nature of the products that they sell. Training also varies from manufacturer to manufacturer, and for multinational companies it may vary from country to country. Generally, detailer training consists of initial classroom courses lasting as little as a few days or as long as a month and may include written tests. Product managers, who may be physicians or pharmacists, generally teach these courses. Supervisors then accompany detailers on sales calls in a detailer's territory. Detailers attend refresher training seminars periodically (98, 163, 212).

For contraceptive training, most OC manufacturers produce contraceptive sales training manuals for their detailers. Wyeth-Ayers's manual, for example, discusses male and female reproductive anatomy and physiology, and contraceptive products—how they work, indications, contraindications, and side effects (212).

Although detailers usually work for pharmaceutical manufacturers, in at least one case they work for a government family planning program. Tunisia's Office National de la Famille et de la Population (ONFP) trained five contraceptive detailers in 1988 for its social marketing products, currently the pill and condom. By law in Tunisia contraceptives cannot be marketed through pharmaceutical company detailers. The ONFP detailers learn the basics of marketing from cooperating pharmaceutical companies. ONFP provides a full day of refresher training each quarter. Every six months it reviews the social marketing program in general and the detailers' work in particular in one-week sessions. ONFP plans to add the IUD and the vaginal foaming tablet to its social marketing program by mid-1990 (36, 242).

■

## In-Service Training

Family planning programs have offered a variety of courses or seminars for pharmacists, pharmacy owners, and pharmacy employees since the mid-1970s. Most courses have had two goals: (1) to increase contraceptive sales in pharmacies and (2) to teach and encourage pharmacists and pharmacy staff to be family planning advisors.

## Family Planning Curricula in Indian Pharmacy Schools

There are approximately 200 pharmacy schools in India. Most offer a 2-year program leading to a diploma in pharmacy. About 60 schools offer a 4-year bachelor program and usually the 2-year program as well (11).

**Two-year program.** Most 2-year pharmacy schools offer a standard curriculum approved by the Pharmacy Council of India. Family planning is part of a course entitled "Physiology, anatomy, and health education." It covers:

- India's population problem,
- India's family planning program,
- How family planning methods work, and
- Types of contraceptives.

In the practical part of the course, students have to identify various contraceptives (210).

**Four-year program.** Four-year programs also deal extensively with family planning. For example, a health education course may cover India's population problem and family planning program. The programs also cover:

- Pharmacists' role in motivating the public to practice family planning;
- Pharmacists' role in implementing India's family planning program in hospitals, dispensaries, and drugstores;
- Contraceptive methods—how they work, how they are used, and how to store them; and
- Regulatory testing and approval of contraceptive methods.

Four-year students also must be able to identify various contraceptives (35).

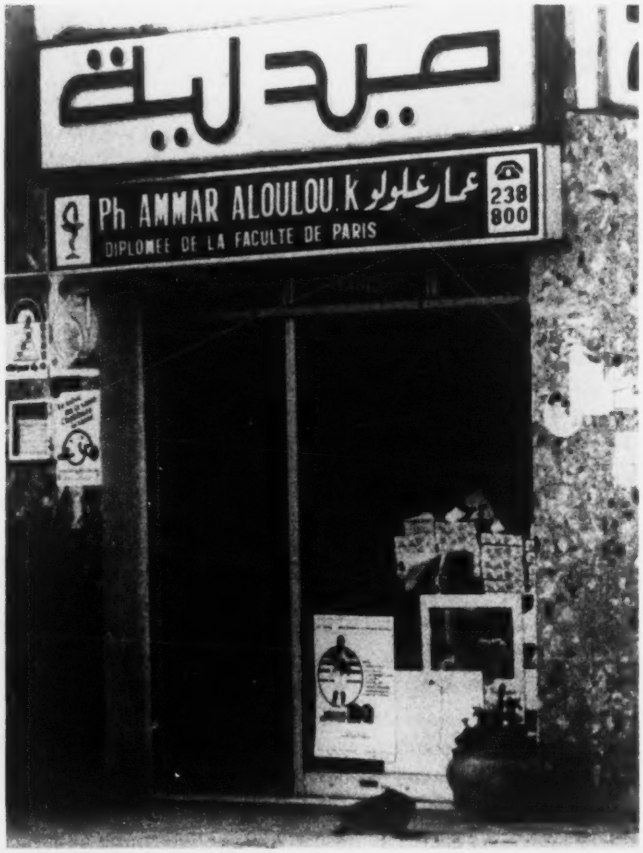
Various organizations have conducted family planning training programs for pharmacy staff:

- Family planning organizations,
- Maternal health organizations,
- Professional associations of pharmacists,
- Associations of pharmacy owners,
- Government family planning or health departments,
- Universities,
- Pharmaceutical companies, and
- Large corporations providing employee health services.

The first courses were offered for pharmacy employees in Central America with help from the Pathfinder Fund. Since then courses have been offered in a number of countries throughout the world. Currently, most training of pharmacists and pharmacy staff is part of training for retailers conducted by social marketing programs (see Table 4).

Regardless of who organizes training, the good will and encouragement of the ministry of health and pharmacists' organizations are important. Lack of such support can hamper a program. For example, a project in Latin America in the late 1970s was stopped because the ministry of health did not approve it (238). In Matamoros, Mexico, the opposition of the local pharmacists' organization slowed the start of a pharmacy training program in the mid-1980s (200).

The number of trainees in each program has varied considerably. The social marketing program in the Dominican Republic has conducted one of the largest training efforts. Some 4,000 clerks were trained between 1986 and 1988 (333). In Bangladesh Population Services International has trained about 8,000 owners and employees (131). These programs generally invite all pharmacists, owners, and employees from pharmacies that carry the social marketing program's products. Most programs have trained fewer than 1,000, however. For example, programs in Central America in the late 1970s trained 250 to 635 pharmacy employees in each of six countries (238). The Bolivian social marketing program trained about 600 pharmacists and 140 pharmacy employees between October 1988 and August 1989 (291).


صيدلية
Ph AMMAR ALOULOU.K عمار علولو
238
800
DIPLOMEE DE LA FACULTE DE PARIS

*Most pharmacy schools provide minimal training about family planning. Therefore, signs touting diplomas do not always mean that family planning advice is available.* (GEORGE GRIFFENHAGEN, APhA)

Crucial to any training program are:

- Selection of course content and training materials and
- Selection of participants, trainers, and training methods.

■

## Course Content and Training Materials

The content of courses and training materials depends on the level of education of the participants and on local health care problems and resources.

**Content**. Most training programs cover male and female reproductive anatomy, the menstrual cycle, and contraceptive methods—how they work, their effectiveness, indications, contraindications, and side effects. A common goal is to correct misinformation among the participants and to prepare them to counter rumors among their customers.

Other topics covered depend on the interests of the participants and on the country's needs. They have included:

- The population situation in the country and the importance of family planning and responsible parenthood (programs in Central America in the 1970s and in Ecuador, Guatemala, and Peru in the 1980s).
- Family planning programs and the role of the drugstore and pharmacists in family planning (programs in Mexico, Paraguay, and Ghana). A Mexican program discussed local IUD and voluntary sterilization services so that pharmacists could make referrals (203).
- Laws affecting the sale of contraceptives by pharmacies.
- Basic marketing principles, to encourage pharmacy staff to take an active role in increasing contraceptive sales (programs in Central America and Nepal in the 1970s and currently in Guatemala).
- Record-keeping techniques (in Burkina Faso).
- Communication and motivation skills, to improve trainees' ability to counsel or screen customers (in Central America, Egypt, Nigeria, Paraguay, and Peru) and to encourage discussion of family planning between parents and children (in Belize).
- Oral rehydration therapy (ORT) (in Bangladesh, Ghana, and Liberia). In Bangladesh a one-day program covers ORT in the morning and contraception in the afternoon (131).
- Other medical and public health topics, including human sexuality, genetics, pregnancy, delivery, breastfeeding, vaccination, and sexually transmitted diseases (in Belize, Mexico, and Nigeria). Programs in Nigeria and Belize discuss acquired immune deficiency syndrome (AIDS) (83, 230).
- How family planning can help the pharmacist increase sales and perform a community service (in Ghana, Mexico, and Paraguay) (83, 202, 203, 238).
- Family planning and Islamic teachings. The introductory module for a training program in North Yemen discussed the acceptability of family planning in Islam (282).

Most courses take one day. Shorter courses, such as those sponsored by the pharmaceutical distributor Scherifarm Equatoriana in Ecuador, last a few hours in the evening. This avoids taking pharmacists and employees away from their jobs (96). Weekend courses have been conducted in the Philippines, and 2- to 3-day courses, in Indonesia and Belize (148, 157, 230).

**Course materials**. Programs have designed audiovisual materials that aid teaching as well as materials that participants can keep. Audiovisual materials have ranged from flip-charts in a variety of programs to slide shows in Bolivia and Ecuador and even videotaped dramas in Bangladesh (96, 146, 291).

Materials for participants to keep have included training manuals, diplomas or attendance certificates, samples of contraceptives, and, in Bangladesh, plastic briefcases containing family planning brochures, an ORT training manual, a measuring cup for oral rehydration salts, and other materials (82, 105, 146, 224). SOMARC and the Program for Appropriate Technology in Health (PATH) are producing a standard manual in English, French, and Spanish that covers reproductive physiology and all contraceptive methods.

These materials give newly trained personnel status and authority in the pharmacy. Diplomas serve three functions: (1) They provide a record that the employee was trained in a program sponsored by a university or a professional organization. This can be a point of pride for all pharmacy employees, including those who have had little formal education. (2) Displayed in the pharmacy, diplomas tell customers that recipients are reliable sources of information. (3) Diplomas or certificates can encourage other employees to enroll in training programs (131, 238).

## Participants, Trainers, and Training Methods

**Participants**. Most training programs have recruited the pharmacy employees who have the most contact with customers. Thus they have invited clerks only or clerks along with owners or pharmacists.

Sponsoring organizations first find out how many pharmacies, pharmacists, and pharmacy employees are in the area where the training will take place. Some programs rely on local pharmacist organizations for this information. Others have conducted their own surveys.

The sponsoring organization may invite all pharmacists and employees or select the best candidates. In Bangladesh, for example, all pharmacists and pharmacy employees in an area or city are contacted and invited. Programs for pharmacy employees in six Central American countries in the late 1970s were more selective. During pharmacy surveys the staff of the sponsoring organizations interviewed employees and, along with the owners, selected participants. The sponsoring organizations wanted long-term employees who were interested in family planning. Some owners chose employees for other reasons, however. For example, they rewarded their best employee—not necessarily the one who had been on the job longest—with the opportunity to attend the seminar (238). To protect against the impact of staff turnover, two or three employees from each drugstore may be invited (202).

While most training has focused on community pharmacists, in Nigeria some pharmacists working in employment-based clinics also are being trained to provide contraceptives.

*Short-term, in-service training programs can help pharmacy owners, pharmacy employees, and pharmacists to increase their knowledge of family planning. In Thailand (top) a group discussion for drugstore employees is underway. In Bangladesh (bottom) trainees learn about oral rehydration therapy as well as contraceptive methods.* (TOP: PATH/BANGKOK; BOTTOM: POPULATION SERVICES INTERNATIONAL)

Three Nigerian parastatal industries—the Nigerian National Petroleum Company, the National Electric Power Authority, and Nigerian Telecommunications, Ltd.—are adding family planning to their free health services for employees. Three to five pharmacists or pharmacists' assistants in each company are learning to procure and store contraceptives and to keep records. Company doctors and nurses also are being trained (140, 141, 142).

Pharmacy owners have generally been cooperative about attending and allowing employees to attend family planning courses. They see training as a way to make more money and to learn more. A few owners, however, have been reluctant to let employees attend training seminars. They usually have to pay employees even though they are not working, and trained employees may leave their jobs more quickly, sometimes even to open their own competing drugstores (112, 199).

Employees have generally been enthusiastic about training. For some, it is their first formal professional education. In one Latin American country, however, some employees working on commission did not want to take time away from their jobs because they would not be paid (238). Employees have been reluctant to participate if the training is scheduled for the same time as sporting events or vacations (200).

Table 4

## Family Planning Training for Pharmacists, Pharmacy Owners, Pharmacy Employees, or Detailers

### *Selected Current Programs*

| *Region & Country* | *Ref. No.* | *Year Started* | *In-Country Organization* | *Technical Assistance Organization* | *Description* | *Evaluation Techniques & Results* |
|---|---|---|---|---|---|---|
| ***AFRICA*** | | | | | | |
| ***Burkina Faso*** | 88 | 1989 | Ministry of Health and Social Affairs, Department of Family Health | FPIA | 3-day course for provincial pharmacists in contraceptive storage and record-keeping; goal is to add contraceptives to drug distribution system. | Pre- and post-tests. Results not available. |
| ***Cameroon*** | 89 | 1989 | Pharmacie Notre Dame | FPIA | $1\frac{1}{2}$-day seminar to tell pharmacists about contraceptives and to discuss private-sector contraceptive distribution project in major cities. | Potential of private-sector distribution to be assessed by sales of barrier methods and OCs given out at seminar. |
| ***Ghana*** | 211<br>263<br>268 | 1985 | Pharmahealth Center, Ltd. (pharmaceutical consulting firm) | SOMARC | 1-day courses to promote sales of social marketing products and improve counseling of pharmacists and chemical sellers in contraception and ORT. Trained chemical sellers will be permitted to distribute OCs without prescription. 2,850 chemical sellers and 250 pharmacists trained as of April 1988. | Average score on pre-tests and post-tests increased 20 to 80 percent. Mystery shoppers found trained staff knew more about OCs than untrained staff: e.g., 62% vs. 43% knew that high blood pressure is a contraindication; 98% vs. 76% knew that OCs do not cause sterility. |
| ***Liberia*** | 82 | 1988 | Famcare (social marketing company) | SOMARC | Courses to improve counseling skills of pharmacists and medicine shop workers in contraception and ORT. | NA |
| ***Nigeria*** | 164<br>165<br>166<br>167 | 1989 | University of Nigeria Teaching Hospital, Anambra State; Ministry of Health, Ogun State; Institute of Health, Ahmadu Bello University, Zaria; Reproductive Health Unit, University of Ilorin | Margaret Sanger Center | 1-day courses to improve contraceptive counseling of 400 pharmacy clerks in 4 states. | Pre- and post-tests. Results not available. |
| ***ASIA*** | | | | | | |
| ***Bangladesh*** | 131 | 1986 | None | Population Services International | One-day courses for pharmacists and clerks to improve contraceptive and ORT counseling and increase sales of contraceptives and ORS. 8,000 trained by mid-1989. | None |
| ***Indonesia*** | 157 | 1989 | National Family Planning Coordinating Board, Indonesia pharmacists' association | None | 2–3 day courses on basic family planning services for pharmacists in social marketing. | None |

*FPIA = Family Planning International Assistance*

*NA = Not available*

*OCs = Oral contraceptives*

*ORS = Oral rehydration salts*

*ORT = Oral rehydration therapy*

*PATH = Program for Appropriate Technology in Health*

*SOMARC = Social Marketing for Change*

|  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|
| ***Nepal*** | 120<br>193<br>321 | 1976 | Nepal Contraceptive Retail Sales (CRS) Company | Westinghouse until 1983 | **2-day courses for pharmacy owners, sales clerks, and other retailers in social marketing program to improve counseling skills and promote CRS products.** | **Survey of retailers knowledge. Slightly higher percentage of trained clerks than untrained clerks answered questions correctly.** |
| ***Thailand*** | 74<br>229 | 1989 | University schools of pharmacy and local drugstore trade associations | PATH, Enterprise Program | Courses for drugstore employees in 2 provinces to improve counseling and establish drugstores as source of OC information to decrease misuse, discontinuation, and failure of OCs. | Mystery shoppers, pre- and post-testing, assessing exposure of OC users to OC information in mass media and drugstores. Results not available. |
| ***LATIN AMERICA & CARIBBEAN*** |  |  |  |  |  |  |
| ***Bolivia*** | 291 | 1988 | Abendroth (pharmaceutical (distributor) | SOMARC | 2-hour evening seminars for pharmacy owners and employees to improve counseling and increase sales of *Noriday*, the social marketing program's OC; 738 trained as of August 1989. | 6-question post-test focusing on OCs. Results not available. |
| ***Dominican Republic*** | 27<br>137<br>174<br>333 | 1986 | Pro-Bienestar de la Familia Colombiana (PROFAMILIA) | SOMARC | 3-hour evening seminars for sales clerks on contraception and counseling; emphasis on social marketing program's OC. 4,112 trained as of July 1989. | Participant course evaluation forms and mystery shoppers. Shoppers found that 50% of clerks recommended social marketing program's OC. |
| ***Ecuador*** | 291<br>358 | 1988 | Scherifarm Ecuatoriana (pharmaceutical distributor) | SOMARC | Evening seminar for pharmacists and clerks to improve counseling and increase sales of social marketing program's OC. Approximately 3,000 trained by end of 1989. | 52% increase in sales of social marketing program's low-dose OC. |
| ***Guatemala*** | 52 | 1989 | Importadora de Productos Farmaceuticos S.A. (IPROFASA) | Juarez & Associates | 511 pharmacists and clerks trained by mid-1989 in seminars planned for every other year. | Participant course evaluation. Results not available. |
| ***NEAR EAST*** |  |  |  |  |  |  |
| ***Egypt*** | 90 | 1988 | International Islamic Center for Population Studies and Research, Al Azhar University | FPIA | 9-hour course over 3 weeks for 20 village pharmacists per year to improve counseling and referral skills. | Pre- and post-tests. Results not available. |
| ***Tunisia*** | 36<br>242 | 1988 | Office National de la Famille et de la Population (ONFP) | Ronco Consulting Corporation | 1-day seminars for pharmacists on social marketing program. Initial training and refresher courses for 5 detailers in social marketing program. | NA |
| ***Yemen Arab Republic*** | 282 | 1987 | Health Manpower Institute, Ministry of Health | Pragma Corporation | Courses for assistant pharmacists and other auxiliary health workers in health and family planning services. | NA |

**Trainers.** The training is led by sponsoring organization staff or consultants, pharmaceutical company staff or detailers, university professors, pharmacy school staff, doctors, ministry of health staff, or the staff of a local family planning organization. University faculty lend authority to the program. In 1984 the Family of the Future social marketing program in Egypt invited 300 pharmacists to seminars in which university faculty introduced IUDs and injectables. In Peru, to promote the pharmacists' role as counselors, a psychologist taught part of a program that used role-playing to teach counseling techniques (29).

**Training techniques**. Most trainers lecture or show slides or movies and then answer questions. Most do not use participatory training techniques such as role-playing. One that did was the training in Peru (see p. 27). SOMARC and PATH are preparing a guide for trainers of pharmacy staff that emphasizes participatory training methods.

For teaching adults, participatory techniques—for example, simulations, team projects, role-playing, and discussions—are more effective than lectures or audiovisual presentations. These techniques are also better for transferring information that must be applied—in counseling pharmacy customers, for example—rather than simply remembered and recited. In general, adults learn better when they set goals for their learning, see a variety of teaching techniques, share their own experience as it relates to the course information, and interact with other students (339, 345).

## To Promote Family Planning, Pharmacists Can . . .

- Maintain a reliable supply of contraceptives, with a choice of methods and brands.
- Learn about family planning and advise customers accurately and actively.
- Sponsor and attend training or refresher courses on family planning and encourage pharmacy staff to attend.
- Set up self-service displays of condoms, spermicides, and oral contraceptives.
- Display and distribute brochures about family planning and display family planning posters.
- Support the development of contraceptive social marketing programs.
- Learn about local family planning clinics and establish a relationship with them. Refer customers to clinics if they are interested in the IUD or voluntary sterilization, if they want to use hormonal methods but have contraindications, or if they want more information. Encourage clinics to refer clients to pharmacies when appropriate.
- Promote the image of the pharmacist as a provider of family planning supplies and information.
- Work with pharmacists' organizations to encourage their members to promote family planning.
- Work with other medical professionals—doctors, nurses, and midwives—to promote family planning.
- Promote changes in laws, where necessary, to allow pharmacists to dispense contraceptives without a doctor's prescription.
- Encourage—or at least not oppose—legislation to permit oral contraceptives to be distributed by nonpharmacists.
- Endorse family planning publicly, especially in the media.
- Support mass-media promotion of family planning, including method-specific information and brand-specific advertising.
- Work with pharmacy schools to upgrade their family planning curricula and to offer courses in communication and counseling techniques.

# Evaluating Pharmacist Training

Sponsoring organizations evaluate training in a number of ways:

- Pre-tests and post-tests to measure changes in knowledge,
- Trends in contraceptive sales, and
- Visits to pharmacies to watch program graduates at work and to assess employee's knowledge and counseling skills.

Evaluation is sometimes difficult. Major problems include lack of sufficient sales data for evaluation and high turnover of employees. In a Mexican program, for example, over half of 140 owners and employees had changed jobs within a year after their courses and did not return a postcourse take-home exam (199).

### Changes in Knowledge

Most programs conduct pre- and post-tests of factual knowledge. Results are not always available, however. Those that are available have reported that training increased test scores. In a program in Ecuador, for example, 33% of the participants could name at least four different contraceptive methods at the beginning of the course; 54% could do so at the end of the course (50). In the Philippines scores increased from 39% before a course to 91% after the course (148).

### Trends in Contraceptive Sales

Several programs have reported increased sales after training. For example, a Honduran program compared a pharmacy with trained employees and one without. Surveys, which were conducted one month before the courses and four months after, found that contraceptive sales had increased by more than 20% in the pharmacy with trained employees but by only about 3% in the pharmacy where the employees were not trained. In the Dominican Republic program staff measured contraceptive sales at a pharmacy before and after a course. Sales of contraceptive jellies and vaginal suppositories increased by approximately 20%, condoms by 30%, oral contraceptives by 50%, and injectables by 60% (238).

Although sales data seem to be a simple and direct measure, they are not always obtainable. Many pharmacists do not keep sales records, and those who do are not always willing to release them. For example, pharmacists in Peru were not willing to give out sales information to a family planning organization, possibly because they feared that the government would obtain the information and charge more taxes (312).

## Visits to Pharmacies

Training staff, sometimes posing as customers (so-called mystery shoppers), visit pharmacies to see what contraceptives pharmacy staff recommend to customers or to assess trainees' knowledge and application of course information. Programs in the Dominican Republic, Ghana, Honduras, Peru, and the Philippines demonstrate the purposes and the findings of such visits:

**Dominican Republic.** Observers checked whether pharmacists were recommending the social marketing program's oral contraceptive. The survey, conducted by mystery shoppers, found that half of 58 pharmacists recommended the social marketing program pill over other brands. The other half recommended one of several other pills on the market or made no recommendation (27, 333).

**Honduras**. In a survey to assess the application of course information, 49% of trainees said that customers had asked about family planning. Over 70% said that they had applied information from the course, and 89% felt more confident dealing with customers' questions and requests for family planning (238).

**Peru**. Staff from the sponsoring organization, Asociaciòn para el Desarollo Integral de la Familia (ADIFAM), visited pharmacies staffed by trained employees and pharmacies whose employees had not been trained. They asked the employees any three of six standard questions about contraceptive use and graded the completeness of the answers. Trainees were asked, for example: Which method is most effective—rhythm, condom, pill, or IUD? and What are the days during which a woman with a 28-day menstrual cycle can get pregnant? The trained employees answered 79% of the questions correctly, while the untrained employees answered only 25% correctly (312).

**Ghana**. To assess counseling skills and contraceptive displays, a mystery shopper visited pharmacies and chemical shops staffed by trained employees. She requested oral contraceptives or vaginal foaming tablets without asking for more information. After buying the contraceptives, she left the shop and filled out part of a questionnaire. If she had asked for pills, she noted any screening questions asked by the pharmacy employee. If she had bought vaginal foaming tablets, she noted any instructions that the employee offered. She then returned to the pharmacy and identified herself as a family planning user who wanted to explain family planning to members of her "association." She asked the pharmacy employee for information about the product that she bought. She also asked to see other family planning supplies, and, while the employee was collecting them, she evaluated

## Pharmacists, Contraceptives, and Sexually Transmitted Disease

Pharmacists have an important role to play in preventing sexually transmitted diseases (STDs). In particular, some are working to help reduce the spread of human immunodeficiency virus (HIV), which causes AIDS—acquired immune deficiency syndrome.

Several contraceptives protect against STDs. Condoms provide the best protection and were, in fact, first used to prevent STDs rather than as contraceptives (258). Where appropriate, pharmacists should display condoms and brochures about STDs, and they should be able to tell customers how to use condoms for maximum protection against pregnancy and STDs (see p. 12).

Spermicides also provide some protection against STDs by killing the disease-causing microorganisms. Laboratory studies suggest that spermicides could help prevent HIV transmission (61), but this has not yet been demonstrated in epidemiologic studies (220).

In women the microorganisms that cause STDs can ascend into the uterus and cause pelvic inflammatory disease, which in turn can lead to infertility. Because condoms and spermicides protect against STDs, they also protect against pelvic inflammatory disease resulting from STDs (259). Oral contraceptives do not protect against STDs of the lower genital tract, but they do protect against pelvic inflammatory disease. Women who use OCs have half the risk of nonusers of developing pelvic inflammatory disease. Oral contraceptives thicken the cervical mucus. Thick cervical mucus prevents the disease-causing microorganisms from ascending into the uterus (see **Population Reports**, *Lower-Dose Pills*, A-7, November 1988).

In addition to promoting and selling condoms in their pharmacies, pharmacists in several countries are working in other ways to fight AIDS. In the US the Citizens' Alliance for VD Awareness (CAVDA) and the American Pharmaceutical Association have developed a continuing education program for pharmacists on AIDS (57). Another organization, Pharmacists Planning Service, has encouraged pharmacists to display condoms openly and to inform their customers that condoms prevent the spread of sexually transmitted diseases, including AIDS (209). In Mexico City the Instituto Mexicano de Investigación de Familia y Población, with support from the United States Agency for International Development, is conducting an AIDS education program for pharmacists (213). In Australia, Greece, Italy, the United Kingdom, and other countries where the laws allow, some pharmacists sell needles and syringes or participate in syringe-exchange programs to reduce the spread of HIV through sharing of contaminated needles by intravenous drug abusers (277). The Royal Pharmaceutical Society of Great Britain has issued guidelines for pharmacists who want to supply clean syringes and needles to drug addicts (5, 289). Such programs are often controversial; their critics contend that they condone drug use.

In general, to help fight AIDS, pharmacists can:

- Offer brochures and display posters,
- Help to set up continuing education programs on AIDS for pharmacists, and
- Participate in AIDS awareness programs in schools and the community (see **Population Reports**, *AIDS Education—A Beginning*, L-8, September 1989).

contraceptive displays, promotional materials, and family planning posters.

The surveys found that, while many of the trainees had been owners and managers, in many pharmacies and shops untrained clerks waited on the mystery shoppers. Although all the stores in the sample had at least one person who had attended the training program, only 39% of the respondents had themselves been trained. In the other stores the trained staff member was not taking care of customers and had not passed on the information from the course to the clerks. A special course for clerks or pamphlets that trainees can give to other employees would help to solve this problem (266).

Regarding counseling, the surveys found that more of the trained than untrained personnel know contraindications to oral contraceptive use, when to take the pill, side effects, and that the pill does not cause sterility. For example, 62% of trained personnel but only 43% of untrained personnel knew that high blood pressure is considered a contraindication to pill use. The survey found, however, that trained staff do not volunteer information, although they do provide information if asked (271, 292).

Although a larger percentage of trained staff than untrained staff could provide correct information, a significant percentage of trained staff were misinformed. For example, 90% of trained staff did not correctly screen mystery shoppers who wanted to buy the pill (266). As a result of the evaluation, changes in the training program are being considered (292).

Many pharmacies and chemical shops did not display the social marketing program's contraceptives, advertisements, or OC screening poster. Of the three contraceptives offered by the social marketing program—*Panther* condoms, *Norminest* OCs, and *Kamal* vaginal foaming tablets—condoms were the most displayed. Half of the pharmacies and shops displayed condoms, and one-quarter advertised them. Only about 30% of the outlets displayed the programs's OC screening poster (266). Pharmacy training programs should emphasize the importance of displays in reducing customers' embarrassment and increasing contraceptive sales.

**Philippines**. Staff of the sponsoring organization, Integrated Maternal and Child Care Services and Development, conduct half-day visits three to six months after the courses. They check whether the pharmacists are carrying out their plans to increase their role as family planning counselors—plans formulated during the course. They have found that:

- Pharmacists working in small shops were more likely to counsel customers than pharmacists working in chain stores.
- More pharmacists were referring customers to clinics or hospitals for family planning services after the course than before. They made more referrals because, as a result of the course, they knew where to refer clients, they understood how contraceptives work, and they felt a responsibility to provide information.
- Pharmacists did not have time to dispel rumors and misconceptions about the pill and IUD. They requested brochures, handouts, and posters to help them counsel customers.

Pharmacists applying information from the course are offered a day of update training (110, 148, 149).

Pharmacists are often the most accessible of all health care providers. Their potential in public health and family planning is clear. That potential has been neglected, possibly because other health care providers think of them more as entrepreneurs than as health professionals. But it is the quality of entrepreneurship—pharmacists' ability to attract and keep customers—that makes them valuable in family planning efforts. They are in the right place at the right time. By working more closely with others in the family planning field, they can provide the right products, at the right price, and with the right information.

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# Population Reports

# Lights! Camera! Action!

## Promoting Family Planning with TV, Video, and Film

### HIGHLIGHTS

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Volume XVII, Number 5

**In Nigeria a music video by two well-known singers asks fellow Nigerians to choose the best time to have their children. In Mexico audiences laugh at pregnant men in a hit television soap opera. In Turkey a TV spot shows a popular comedian portraying a farmer dividing the family farm among his seven children: each gets only a pot of dirt. In Zimbabwe a feature film tells the story of Rita, whose life as a student falls apart when she becomes pregnant.**

Television, videotape, and film can bring family planning messages to life. These "visual electronic media" engage their audiences, and the engaged audience is an audience ready to learn. Evidence is beginning to emerge that they can influence family planning behavior. They work particularly well when they combine family planning themes and messages with entertainment in a high-quality, well-targeted production that promotes specific family planning methods, services, or types of providers. For example:

- In Brazil the first vasectomy promotion ever on television helped increase vasectomies at the advertised clinics by nearly 80%.
- In Turkey a multimedia campaign involving humorous spots, dramas, motivational and documentary programs on televi-

*Series J, Number 38* *Family Planning Programs* *December 1989*

sion appears to have encouraged an estimated 240,000 women to start or switch to modern contraceptives.

- In Ibadan, Nigeria, nearly one-quarter of new clients at family planning clinics cited as their source of referral TV shows that broadcast clinic addresses.
- In the Philippines calls jammed the switchboard of a hotline promoted in TV spots that accompanied music videos encouraging sexual responsibility. Some 150,000 young people may have called in a period of less than six months.

## Reaching More People

Television is growing fast. While still outnumbered by radios 2 to 1, in the developing world the number of television receivers has more than doubled over the last decade. There are now nearly 350 million TV sets in the developing world—one for every 12 people, compared with one for every 2 in the developed world.

Videocasette recorders (VCRs) are spreading even faster, doubling or tripling in number since 1984. In Latin America and the Caribbean and in Asia, there is one VCR for every seven televisions. Video parlors—the television equivalent of cinemas—are springing up throughout the developing world.

With the growing reach of these mass media, their aggregate impact on family planning behavior can be substantial. Although theoretically interpersonal communication is more persuasive, in practice the time, knowledge, and counseling skills that health workers can devote to individual clients are often limited. Surveys show that people want to know more about family planning and that a large majority consider television and radio appropriate ways to learn. Linking mass-media approaches with face-to-face contact and readily available services and supplies may offer the most effective and efficient approach to increase use of family planning.

## Using Professional Skills

While television, videotape, and film can reach many people, these media are not easy to use. Productions are expensive, often require scarce technical expertise, must compete with commercial productions, may be difficult to get shown, and may generate controversy. Furthermore, as with all communication efforts, they require careful planning, audience research, message development, pre-testing, dissemination strategy, evaluation, and, above all, coordination with existing services. Ultimately, evaluation is difficult: people see and hear so much that influences family planning attitudes and behavior that the connection between mass-media messages and behavior can be hard to demonstrate.

Still, TV, video, and film offer much—contact with large audiences, engaging media, and the high visibility that can attract top talent and corporate sponsorship. As these media reach out to more and more people, they become an increasingly important way to make family planning a household word, a community norm, and an informed individual choice.

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# Viewing Trends

Every day millions of people worldwide watch moving images on a screen. From Zimbabwe to Taiwan people watch television broadcasts, rent videotapes, or go to the cinema. While these three media are spreading at different rates in different places, everywhere more and more people are seeing them.

## Television

**Receivers.** There are an estimated 960 million television receivers in the world—one for every five people (22). These sets are distributed among an estimated 600 million homes plus a wide variety of public places (173). Most receivers are in developed countries, where there is one television set for every two people. In developing countries there is one TV receiver for every 12 people, but people often watch TV in large groups. Within developing regions televisions are most common in Latin America and the Caribbean, where there is one receiver for every six people. In Asia, excluding Japan, there is one for every 13 people; in the Near East and North Africa, one for every 8; in Africa, one for every 29 (22).

There are still more radios than TV sets. Radios now number more than 2,000 million—one for every person in developed countries and one for every five people in developing countries (22). (See **Population Reports**, *Radio—Spreading the Word on Family Planning,* J-32, September-October 1986.) Television, however, is growing faster. Worldwide, about 100 million homes bought their first television sets in the last six years (173). Most of this growth was in the developing world since most households in the developed world already had television (see Table 1, p. 4, and Table 2, p. 6).

**Channels.** With more and more people watching TV, how much is available to watch? A rough indication of the variety of programming available is the number of channels. In regions or countries where governments own and operate broadcast stations, as in most of the developing world except Latin America and the Caribbean, the number of channels is limited. For example, in Africa only Ghana, Nigeria, South Africa, and Zimbabwe have more than one channel. About half of the countries in Asia are limited to one channel. Notable exceptions are China, with 48 channels; Indonesia, with 20; and the Philippines, with 11 (173). Where stations are privately owned, there are more channels. In Latin America and the Caribbean, there are an average of eight channels per country. Similarly, in developed countries most stations are privately owned, and there are scores of channels. Many broadcast much the same programming, however, through a limited number of commercial or publicly run networks.

While private stations are subject to government licensing and regulations, in developing countries they generally show a greater variety of programming than government stations. Because they air paid advertising, they usually have more money to buy foreign programming. Thus privately owned stations are generally more popular than government stations. In Latin America, for example, most of the few public stations have low ratings.

Increasingly, governmental broadcasting entities are being shifted to parastatal or even semicommercial stations supported at least partly by advertising revenues. This is happening in Ghana, Nigeria, Zimbabwe, and elsewhere.

## Video

**Videocassette recorders (VCRs).** There are an estimated 190 million VCRs in the world—roughly one for every three homes with TV receivers (174). By the end of 1990, an estimated 200 million homes worldwide will have VCRs (162). The number of VCRs is growing faster than that of televisions in all regions (see Table 1).

VCRs give viewers more control over program selection. Viewers are no longer limited to watching broadcast signals. Depending on the availability of prerecorded videotapes, they can watch what they want, when they want, with whom they want. Increasingly, both feature films and internationally syndicated television programs are dubbed into local languages and distributed around the world on videotapes. Thus videos compete with broadcast television as well as with cinemas. Most films are released on videotape within one or two years of their cinema release; some are released on video only. In countries where there is little or no broadcast television, people use TV receivers as monitors and watch taped programs and films through VCRs. VCRs also allow viewers to tape TV broadcasts and to play them back when they choose.

Many of the videotapes circulated throughout the world are pirated. For example, video piracy is estimated to account for 70% of tapes in Colombia; in Argentina, 30%; in Brazil, 35 to 80% (149). In India 95% of the 45 million videocassettes in circulation are pirated (184). Often, pirated videos of a film are available even before it is shown in cinemas, substantially reducing cinema attendance.

**Video parlors.** Video parlors are a spreading phenomenon. Licensed and unlicensed viewing establishments are

Brian Randall, UNDP

*TV antennas are now common on roofs not just in Yemen but worldwide. In developing countries there is one TV set for every 12 people.*

Table 1

Growth in Numbers of Television Sets and Videocassette Recorders, by Region, 1984–1989

| Region | Number of TV Sets (in Millions) 1984 | Number of TV Sets (in Millions) 1989 | 1984–89 % Increase | Average Annual % Increase |
|---|---|---|---|---|
| Latin America and Caribbean | 56.0 | 78.9 | 41 | 7 |
| Asia[a] | 61.9 | 210.7 | 240 | 28 |
| Near East and North Africa | 18.1 | 41.0 | 127 | 18 |
| Africa | 10.9 | 17.2 | 58 | 10 |
| All developing countries | 146.9 | 347.8 | 137 | 19 |
| 6 developed countries[b] | 378.0 | 430.5 | 14 | 3 |

| Region | Number of VCRs (in Millions) 1984 | Number of VCRs (in Millions) 1989 | 1984–89 % Increase | Average Annual % Increase |
|---|---|---|---|---|
| Latin America and Caribbean | 2.2 | 9.6 | 336 | 34 |
| Asia[a] | 3.9 | 11.8 | 203 | 25 |
| Near East and North Africa | 2.9 | 7.4 | 155 | 21 |
| Africa | 0.4 | 1.2 | 200 | 25 |
| All developing countries | 9.4 | 30.0 | 219 | 26 |
| 6 developed countries[b] | 41.1 | 109.9 | 167 | 22 |

VCRs = Videocassette recorders

[a] Except Japan

[b] Australia, France, Japan, UK, US, and USSR

springing up throughout the developing world. They are most popular in Africa and Asia. Video parlors offer access to video for those who cannot afford VCRs and TV receivers. At the same time, they compete with cinemas for viewers. In India, for example, there were an estimated 10,000 video parlors by 1987. Under government regulations such parlors need only to have separate toilets for men and women to charge admission legally. Indian video parlors charge from Rs. 1 to Rs. 3 (US$.08 to .25), about half the cost of admission to a cinema (157, 184). In Ghana both cinema-like video parlors and homes equipped with VCRs charge for showing videotapes.

In addition to video parlors, VCRs are often found in other public places. In India, for example, more than 12,000 intercity buses are equipped with VCRs. The price of a bus ticket for a journey several hours long includes the cost of viewing a film. Tea stalls, restaurants, and bars are also common public places to watch VCRs. Renting a VCR is also popular. In India it costs about $4 (US) per day (184).

## Film

**Cinemas.** The film industry is changing as people see films more and more on video and television and less in cinemas. In most regions many cinemas are closing. In Latin America the decline has been dramatic. In the five years between 1983 and 1987, over half of the cinemas in Argentina closed. Between 1977 and 1987 the number of Brazil's cinemas declined by 62%. In Mexico, however, the number of cinemas rose 18%, from 2,534 to 2,995, over the same period. The number of cinemas also is declining in Europe (172).

In contrast, more cinemas are opening in Asian nations. In India, for example, the number of cinemas more than doubled between 1965 and 1987. In Indonesia the number more than doubled between 1977 and 1988 (172).

In the US many new movie theaters have opened even though over two-thirds of households have VCRs (174). The number of US screens rose 72% between 1965 and 1987. Some of this increase was due to large, older theaters with single screens being divided into several smaller cinemas showing different films.

**Film production.** Not surprisingly, the US is also one of the world's leading producers of feature films. In 1988 US companies released 513 long films, just two less than the 1987 record (161). This was nearly double the number of US long films produced in the early 1980s (211).

In most countries film production is declining, however. For example, European cinema output dropped 40% over the last 15 years (169), although a few European countries have experienced small increases in recent years. In Latin America, too, film production is decreasing (148). India's output, while topping the US's in total films produced annually, fell from 806 films in 1987 to 773 in 1988 (152, 154).

The decline in film production is due partly to a worldwide change in film preferences over the last decade. Western film imports now tend to dominate cinema screens in developing countries, severely straining indigenous film industries. Indonesian cinemas, for example, showed 170 imported films in 1988, nearly half of which were from the US or Western Europe. Films from the US are particularly in demand everywhere (211). There are, however, some regional exporters, such as Egypt in the Arab world, India in Asia, and Mexico in Latin America. These countries dominate the cinema trade in their regions, with some films occasionally reaching even wider markets.

**Admissions.** Cinema admissions appear to be declining as more and more people watch films on video and television. This trend is evident in some of the largest film-going nations. For example, Japan posted its highest number of cinema admissions in 1965; the US, in 1955 (167, 172). In Latin America especially, admissions are declining dramatically. In Brazil admissions were down 18 to 25% between 1984 and 1988 (148). Some of these apparent decreases may be due to underreporting of admissions since the number of admissions determines the cinema owner's film rental fee (149).

# Advantages and Limitations

In addition to their wide appeal and large audiences, television, video, and film have other advantages that make them suitable for health promotion. Of course, these advantages are balanced by some limitations. Family planning organizations need to develop strategic plans for using the media, considering their own needs and resources and balancing advantages and limitations. Important choices in such planning include the mixture of mass-media and interpersonal communication, which of the various media to use, and which services to promote.

Alice Payne Merritt, JHU/PCS

*Television, video, and film can attract attention, arouse emotions, present role-models, and educate while entertaining—and these media are reaching more people. Thus they offer a growing potential for family planning communication.*

MEXFAM

## Advantages

- **Attractive.** Moving images attract attention. Few people can walk past a television without stopping to look. Images are often remembered longer than verbal messages (30).
- **Agenda-setting.** The mass media bring certain issues to public attention while ignoring others. This agenda-setting can influence both public and private decisions by making certain issues seem more important than others (84, 95).
- **Influential.** Television, video, and film are often seen by important audiences such as decision-makers. Usually the wealthy, who include those with political and economic power, are the first to own televisions and VCRs. They are accustomed to receiving information through these media and may pay more attention to messages from them than to messages from other sources. Political leaders consider these messages important partly because they know that many people are seeing them (106).
- **Acceptable.** Most viewers find family planning messages in the mass media acceptable. When women of reproductive age in 19 countries were asked, "Is it acceptable or not acceptable to you for family planning information to be provided on radio or television?" an average of 84% answered "yes." Over half of these women watched television at least once a week (45) (see Table 3, p. 8).
- **"Enter-educating."** Television, video, and film can educate while carrying out their usual role of entertaining. Everyone likes and wants to be entertained, and every culture uses some form of entertainment to teach social lessons. "Enter-educate," the term coined to describe this concept, means that entertainment can show people how they can improve their lives (see box, p. 17). Family planning messages can be incorporated into many forms of television and video entertainment (40, 78, 216) (see box, p. 9).
- **Moving.** These media, especially when they entertain, can elicit emotions that may spur behavior change. Mass-media campaigns that arouse emotions can be extremely powerful, not only in influencing individual behavior but also in changing law and policy. The emotions aroused may be negative, such as fear, or positive, such as love, hope, or aspirations (111). Emotional appeals especially influence people who are already concerned and may attract the attention of people initially indifferent to the message (14).
- **Exemplary.** Television, video, and film can offer examples of behavior. Characters in drama, soap opera, and feature film often serve as role-models either to copy or to avoid (16, 143, 186). Also, by depicting characters and events, they can make abstract concepts such as family planning not only concrete, but also moving.
- **Cost-sharing.** High-quality products with commercial appeal can save family planning programs money and sometimes even generate income. Projects in Latin America, the Philippines, India, and Turkey have shown that, when organizations obtain corporate sponsorship, including donation of airtime and promotional materials, they increase the reach of the message at little cost to the organization (81, 130, 186, 226).
- **Cost-effective.** Well-designed, high-quality TV, video, and film productions can reach large numbers of their intended audiences for very little cost per person. In Nigeria the songs and music videos "Wait for Me" and "Choices" cost an estimated 2.2¢ (US) for each person of reproductive age reached (118) (see p. 20). In Turkey the estimated cost was 4¢ (US) for each married woman of reproductive age reached by a family planning message (226) (see p. 19).
- **Educational.** Videotape, especially, is well-suited to training clients and providers and to other educational needs (see box, p. 23).
- **Illustrative.** In training films and videotapes the combination of sound and image can demonstrate and explain complicated messages and procedures (104).
- **Portable.** Portable film projectors and video players make it possible to take the message to the people, wherever they are. Films can be shown to larger audiences, but VCRs and monitors break down less often and are easier to repair than film projectors (188).
- **Replayable.** Films, videos, and television programs can be played over and over again. This is advantageous when many people, such as health workers, need to hear the same messages but cannot be brought together. Also, some people need to see and hear messages repeatedly.

## Limitations

Using television, video, and film for family planning messages is not without problems, however. Productions for these media are often:

- **Costly.** The cost of television receivers and VCRs limits the audience in some areas. More commonly, the initial expense of production facilities, technicians, equipment, airtime, maintenance, repairs, and distribution limits its production. Because of its cost, television production is often given the largest share of family planning com-

## Table 2. The Reach of Television, Video, and Film: TV Transmitters and Receivers, Videocassette Recorders, and Cinemas in 69 Selected Countries

| | TV TRANSMITTERS[a] | | | TV RECEIVERS[b] | | VCRs[c] | | CINEMAS[d] | |
|---|---|---|---|---|---|---|---|---|---|
| | Channels 1989 | Transmitters 1989 | Stations 1989 | (in 1000s) 1989 | Per 1000 Pop. | (in 1000s) 1989 | Per 1000 Pop. | Year | No. |
| **LATIN AMERICA & CARIBBEAN** | | | | | | | | | |
| **Argentina** | 42 | 348 | 42 | 8,500 | 267 | 580 | 18 | 1987 | 425 |
| **Bolivia** | 28 | 48 | 48 | 700 | 99 | NA | NA | 1979 | 209 |
| **Brazil** | 150 | 118[e] | 118 | 35,000 | 237 | 4,150 | 28 | 1987 | 1,200 |
| **Chile** | 6 | 174 | 52 | 2,600 | 200 | 250 | 19 | 1987 | 145 |
| **Colombia** | 7 | 60 | 53 | 4,000 | 128 | 915 | 29 | 1987 | 435 |
| **Costa Rica** | 6 | 6 | 6 | 450 | 150 | 49 | 16 | 1987 | 68 |
| **Dominican Rep.** | 7 | 17 | 17 | 600 | 86 | NA | NA | 1987 | 80 |
| **Ecuador** | 11 | 13 | 13 | 900 | 86 | 105 | 10 | 1984 | 185 |
| **El Salvador** | 4 | 5 | 5 | 500 | 98 | 54 | 11 | 1987 | 67 |
| **Guatemala** | 5 | 25[e] | 6 | 550 | 62 | 70 | 8 | 1982 | 140[f] |
| **Haiti** | 1 | 3 | 3 | 25 | 4 | NA | NA | 1981 | 28 |
| **Honduras** | 6 | 26 | 11 | 100 | 20 | NA | NA | 1987 | 99 |
| **Mexico** | 6 | 193 | 70 | 13,000 | 150 | 1,826 | 21 | 1988 | 3,000 |
| **Nicaragua** | 1 | 7 | 2 | 200 | 57 | NA | NA | 1987 | 127 |
| **Panama** | 5 | 25 | 9 | 450 | 188 | 142 | 59 | 1987 | 55 |
| **Paraguay** | 7 | 5 | 5 | 200 | 48 | NA | NA | 1987 | 100 |
| **Peru** | 8 | 124 | 12 | 2,500 | 117 | 436 | 20 | 1987 | 400 |
| **Uruguay** | 26 | 36 | 26 | 700 | 233 | 49 | 16 | 1987 | 85 |
| **Venezuela** | 8 | 58 | 8 | 3,250 | 170 | 950 | 50 | 1987 | 380 |
| **Region**[g] | 337 | 1,350 | 541 | 78,900 | 184 | 9,576 | 22 | NA | NA |
| **ASIA** | | | | | | | | | |
| **Bangladesh** | 1 | 11 | 11 | 400 | 4 | NA | NA | 1976 | 194 |
| **China** | 48 | 65[e] | 29 | 140,000 | 127 | 365 | <0.5 | NA | NA |
| **Hong Kong** | 4 | 4 | 4 | 2,000 | 426 | 807 | 172 | 1983 | 90 |
| **India** | 1 | 335 | 37 | 20,000 | 24 | 2,699 | 3 | 1988 | 12,765 |
| **Indonesia** | 20 | 38 | 18 | 12,000 | 65 | 1,081 | 6 | 1988 | 2,600 |
| **Korea, Rep. of** | 4 | 688 | 88 | 12,000 | 278 | 2,274 | 53 | 1986 | 640 |
| **Malaysia** | 5 | 68[e] | 68 | 2,500 | 144 | 796 | 46 | 1977 | 425 |
| **Nepal** | 1 | 1 | 1 | 250 | 13 | NA | NA | NA | NA |
| **Pakistan** | 1 | 29 | 22 | 2,000 | 18 | NA | NA | 1985 | 700[f] |
| **Philippines** | 11 | 30 | 30 | 3,000 | 46 | 757 | 12 | 1988 | 1,100 |
| **Singapore** | 1 | 3 | 3 | 850 | 315 | 240 | 89 | 1986 | 42 |
| **Sri Lanka** | 2 | 6 | 3 | 500 | 30 | 258 | 15 | 1985 | 318 |
| **Thailand** | 5 | 86 | 5 | 6,000 | 108 | 635 | 11 | 1986 | 900 |
| **Vietnam** | 1 | 18 | 5 | 2,500 | 37 | NA | NA | 1984 | 1,369[f] |
| **Region**[g h] | 118 | 1,452 | 341 | 210,700 | 77 | 11,799 | 4 | NA | NA |
| **NEAR EAST & NORTH AFRICA** | | | | | | | | | |
| **Afghanistan** | 1 | 10 | 1 | 100 | 7 | NA | NA | NA | NA |
| **Algeria** | 1 | 18[e] | 18 | 1,750 | 70 | 175 | 7 | 1985 | 216 |
| **Egypt** | 2 | 90 | 90 | 7,000 | 128 | 1,120 | 20 | 1988 | 143 |
| **Iran** | 2 | 478 | 28 | 5,000 | 93 | 598 | 11 | 1985 | 419[f] |
| **Iraq** | 2 | 13 | 13 | 1,500 | 83 | 225 | 12 | 1977 | 84 |
| **Jordan** | 2 | 8[e] | 8 | 850 | 213 | 85 | 21 | 1979 | 41 |
| **Lebanon** | 5 | 24 | 20 | 850 | 258 | 332 | 101 | 1988 | 100 |
| **Morocco** | 1 | 61 | 26 | 3,000 | 117 | 400 | 16 | 1983 | 267 |
| **Saudi Arabia** | 3 | 119 | 80 | 3,000 | 204 | 1,609 | 110 | NA | NA |
| **Sudan** | 1 | 3 | 3 | 2,000 | 82 | NA | NA | 1983 | 56 |
| **Syria** | 2 | 53 | 17 | 1,250 | 103 | NA | NA | 1985 | 140 |
| **Tunisia** | 2 | 19[e] | 19 | 1,000 | 127 | NA | NA | 1977 | 82 |
| **Turkey** | 2 | 520 | 44 | 9,750 | 176 | 2,056 | 37 | 1985 | 576 |
| **Region**[g] | 34 | 1,515 | 421 | 40,950 | 120 | 7,371 | 22 | NA | NA |
| **AFRICA** | | | | | | | | | |
| **Benin** | 1 | 1 | 1 | 40 | 9 | NA | NA | 1985 | 10 |
| **Burkina Faso** | 1 | 2 | 1 | 40 | 5 | NA | NA | 1981 | 12 |
| **Burundi** | 1 | 1 | 1 | 5 | 1 | NA | NA | 1981 | 7 |
| **Cameroon** | 1 | 32 | 12 | 450 | 42 | NA | NA | 1985 | 182[f] |
| **Côte d'Ivoire** | 1 | 14 | 14 | 750 | 62 | NA | NA | 1979 | 72 |
| **Ethiopia** | 1 | 10 | 10 | 100 | 2 | NA | NA | 1985 | 46 |
| **Ghana** | 7 | 15 | 7 | 350 | 24 | 22 | 2 | 1981 | 7 |
| **Guinea** | 1 | 2 | 2 | 60 | 9 | NA | NA | 1985 | 29 |
| **Kenya** | 1 | 6 | 6 | 300 | 12 | 42 | 2 | 1977 | 43 |
| **Madagascar** | 1 | 37 | 1 | 120 | 10 | NA | NA | 1974 | 31 |
| **Mozambique** | 1 | 1 | 1 | 30 | 2 | NA | NA | 1983 | 70 |
| **Nigeria** | 7 | 62 | 31 | 8,000 | 69 | 277 | 2 | 1981 | 260[f] |
| **Senegal** | 1 | 1 | 1 | 600 | 83 | NA | NA | 1976 | 60 |
| **Tanzania** | 1 | 2 | 2 | 50 | 2 | NA | NA | 1981 | 34 |
| **Zaire** | 1 | 18 | 18 | 1,250 | 36 | NA | NA | 1974 | 92 |
| **Zambia** | 1 | 8 | 8 | 300 | 37 | NA | NA | 1976 | 12 |
| **Zimbabwe** | 2 | 16 | 16 | 350 | 37 | 41 | 4 | 1985 | 55[f] |
| **Region**[g] | 53 | 564 | 322 | 17,200 | 35 | 1,231 | 3 | NA | NA |
| **DEVELOPED COUNTRIES** | | | | | | | | | |
| **Australia** | 15 | 714 | 55 | 7,500 | 446 | 4,184 | 249 | 1987 | 689 |
| **France** | 8 | 105[e] | 82 | 23,000 | 410 | 8,391 | 150 | 1987 | 5,063 |
| **Japan** | 6 | 3,745 | 105 | 75,000 | 609 | 24,091 | 196 | 1989 | 1,912 |
| **United Kingdom** | 4 | 939 | 49 | 35,000 | 611 | 13,379 | 234 | 1987 | 1,242 |
| **United States** | 1,458 | 8,069 | 1,458 | 180,000 | 724 | 58,865 | 237 | 1987 | 22,738 |
| **USSR** | 2 | 11,000 | 121 | 110,000 | 381 | 975 | 3 | 1988 | 4,800 |
| **WORLD** | NA | NA | NA | 964,000 | 186 | 185,581 | 36 | NA | NA |

NA = Not available

VCRs = Videocassette recorders

[a] Sources: World Radio and TV Handbook (175) and Screen Digest (173). Definitions of channels, transmitters, and stations vary widely among countries and statistical sources and therefore are not necessarily comparable. Transmitters generally include main stations, transmitters, translators, boosters, and high- and low-power relay stations used for broadcasts to the public.

[b] Source: British Broadcasting Corporation (22)

[c] Source: Screen Digest (174)

[d] Sources: Screen Digest (151,154,163,172) and UNESCO (211)

[e] Excludes low-power relay stations

[f] Includes mobile cinemas

[g] Regional totals include countries not shown.

[h] Excluding Japan

munication budgets, leaving little for other media. Decisions about when to use television or video should be made objectively, not just because these media are glamorous and exciting to work with.

- **Less accessible.** Fewer people have access to television, video, and film than to radio. The people who need family planning information most—the urban poor and people in rural areas—often have the least access to television. Increasing satellite transmissions will give rural people better access to television, but only if they have receivers and electricity. Mobile play-back units, solar or gasoline-powered generators, and existing video parlors and other gathering places with TVs and VCRs also can help.
- **Restricted.** "Gatekeepers" may restrict content. Government often controls or closely monitors the broadcast media. Sometimes television, video, and film are scrutinized more closely than radio or print. Gatekeepers often think that audiences will object to family planning mes-

# Can Mass Media Affect Behavior?

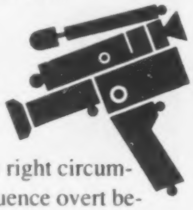
Can television, video, and film influence behavior? Since many people watch television daily, and businesses spend billions on television advertising, clearly many people assume that they do. The effects are presumed to be both intentional, such as those of advertising and public service announcements, and unintentional, such as those resulting from viewing violent crime programs or sexually suggestive soap operas.

Changing behavior is difficult, however. Even laws threatening penalties often fail to change behavior. Certainly, people do not change their behavior simply because a health worker, political leader, or even a family member asks them to do so—even if that person appears on television or in film. Rather, behavior change is a gradual, step-by-step process dependent on a person's experiences and his or her perception of the personal importance of the change (96). In this process simpler actions, such as seeking information, usually come first. More difficult or long-term changes, such as using condoms, must follow these intermediate changes.

Thus it is not surprising that many studies of mass-media impact on behavior find very little or no effects or else conflicting results (82, 95). These studies cover areas as diverse as:

- Violent or aggressive behavior after seeing violent television programs (31, 41, 42, 97, 103, 199, 213, 223),
- Perceptions of cultural or demographic groups and their size (190),
- Family planning adoption (112, 135, 208),
- Children's readiness for school and positive social behavior (98, 198),
- Adolescent sexual behavior (24, 25),
- Voting behavior (28, 33),
- Smoking cessation (17, 18, 52, 220),
- Automobile seat belt use (132), and
- Fire prevention (127).

The reasons for this apparent lack of consistent impact are not clear. On one hand, some programs or campaigns may in fact have no impact, perhaps because they were of poor quality or did not reach enough people often enough to make a measurable difference, or a combination of these. On the other hand, mass media campaigns may have an impact, but it may be obscured for any of several reasons. One possibility is that, in the search for dramatic, large-scale impacts on behavior change, intermediate and less dramatic effects were overlooked. Also, research on the impacts of mass media faces considerable methodological problems, as a number of studies have pointed out (41, 84, 95, 222). For example, it is difficult to determine the direction of causality (95, 223) or to prove that observed changes resulted from mass-media exposure and not from other influences.



Conventional wisdom contends that mass media can best create awareness and inform, but interpersonal communication is more effective at changing behavior. This contention dates back to US research in the 1940s on the effects of radio advertising on voting (77, 85) and has been restated since (32, 78, 136). A number of studies now suggest, however, that under the right circumstances mass-media communication can influence overt behavior. Some of this evidence comes from studies on the use of television in family planning communication campaigns (see pp. 12, 16, 19, 20).

Indeed, mass-media communication may be a more cost-effective way to influence behavior than organized interpersonal communication. Although the impact of mass media on any one individual may be slight, its cummulative effect on a entire population may be great because it reaches many people often (64, 219). In Swaziland, for example, a radio campaign on oral rehydration therapy was found to be higher in overall effectiveness than clinic and outreach workers because it reached about 70% more people (64). Few countries can recruit, train, supervise, and support the extensive network of outreach workers needed to communicate personally with a large population. Many countries, however, can reach most of their citizens through the mass media.

A reexamination of research findings, looking for intermediate changes, shows that mass media can change behavior under certain circumstances (13). Mass-media communication is most successful at changing behavior when it:

- Is designed to reach a specific audience;
- Comes from a source—a person or group—that the audience likes, understands, and believes;
- Comes through familiar communication media;
- Provides a message that is engaging, personally relevant, and novel;
- Tells the audience what to do and how to do it; and
- Is coordinated with locally available supplies and services.

Well-researched mass-media campaigns that are entertaining as well as informative seem to have the greatest impact (59, 64, 80, 90, 91, 123, 138).

Table 3

## Exposure to Television and Attitudes Toward Family Planning Messages in the Mass Media

### *As Reported in Demographic and Health Surveys of Women of Reproductive Age, 1986–1989*

*FP = Family planning*

*NA = Not available*

*Note: Survey populations consisted of currently married women age 15-49 except Brazil and Guatemala—age 15-44; Ecuador, Peru, and Botswana—all women age 15-49.*

*Source: Demographic and Health Surveys (45)*

| | | | | Approves FP on Radio or TV? | | |
|---|---|---|---|---|---|---|
| ***Region & Country*** | ***Year*** | ***% with TV*** | ***% Watching TV Every Week*** | ***% Yes*** | ***% No*** | ***% Don't Know*** |
| ***LATIN AMERICA & CARIBBEAN*** | | | | | | |
| ***Bolivia*** | 1989 | NA | 51 | 80 | 10 | 10 |
| ***Brazil*** | 1986 | 73 | 75 | NA | NA | NA |
| ***Colombia*** | 1986 | 75 | 72 | 96 | 3 | 1 |
| ***Dominican Rep.*** | 1986 | 59 | 65 | 89 | 6 | 5 |
| ***Ecuador*** | 1987 | 66 | 69 | 91 | 3 | 6 |
| ***Guatemala*** | 1987 | 36 | 31 | 66 | 22 | 12 |
| ***Peru*** | 1986 | 62 | 61 | 94 | 2 | 4 |
| ***Trinidad & Tobago*** | 1987 | 90 | NA | 94 | 3 | 3 |
| ***AFRICA*** | | | | | | |
| ***Botswana*** | 1988 | 6 | NA | 78 | 22 | NA |
| ***Burundi*** | 1987 | 1 | NA | 88 | 4 | 8 |
| ***Ghana*** | 1988 | 9 | NA | 75 | 12 | 13 |
| ***Mali*** | 1987 | 3 | NA | 74 | 19 | 7 |
| ***Nigeria, Ondo State*** | 1986 | 21 | NA | 85 | 8 | 7 |
| ***Senegal*** | 1986 | 18 | NA | NA | NA | NA |
| ***Togo*** | 1988 | 13 | NA | 80 | 18 | 2 |
| ***Uganda*** | 1988-89 | 2 | NA | 68 | 27 | 5 |
| ***Zimbabwe*** | 1988 | 15 | 16 | 95 | 4 | 1 |
| ***ASIA*** | | | | | | |
| ***Indonesia*** | 1987 | 29 | 57 | NA | NA | NA |
| ***Sri Lanka*** | 1987 | 19 | 30 | 89 | 4 | 7 |
| ***Thailand*** | 1987 | 49 | 63 | 88 | 4 | 8 |
| ***NEAR EAST*** | | | | | | |
| ***Morocco*** | 1987 | 43 | 44 | 80 | 6 | 14 |
| ***Tunisia*** | 1988 | 73 | 83 | 90 | 5 | 5 |

sages. As surveys show, these fears may be unfounded (45) (see Table 3). Special-interest groups may be a greater problem, since broadcasters and government officials may fear their reactions. Involving the gatekeepers in project planning and consulting with special-interest groups may help avoid later objections (99).

- **Technical.** Trained technical personnel may be in short supply. Many people with different skills are needed to research, plan, produce, and implement a mass-media campaign or to produce a TV program or a film. In addition to project managers, talented and trained producers, directors, actors, technicians, and scriptwriters must be available to ensure a high-quality production.
- **Revenue-dependent.** Film-making has always been a commercial operation. So has television in some areas, and in others governments are beginning to require that television pay its own way. Dependence on advertising revenue may discourage TV stations from donating airtime and may influence program content. Also, there is little impetus for commercial stations to expand broadcast coverage beyond major urban areas, where the advertised products are readily available (78). Airtime must be bought from commercial stations, and prime time—when the most people are watching—is expensive. Many countries require TV stations to broadcast free "public service announcements," but these are usually run when no one has bought the airtime—in other words, when few people are watching. Also, since many people regard television as strictly for entertainment, there may be little commercial support for "educational" programming. Family planning programs can overcome this obstacle by making their messages more entertaining and by putting them into ongoing entertainment programs.
- **Unidirectional.** Lack of immediate feedback may limit behavior change in response to mass-media messages. Television and film, especially, provide little opportunity for viewers to participate. Many feature programs are shown only once, and the one-time presentation of material does not allow for different rates of learning, for people's varying needs for repetition, or for questions and clarification (62, 104). Television, video, and film work better when messages are repeated as often as possible and combined with other forms of communication. Group viewing with discussion leaders can help.
- **Time-consuming.** Planning, researching, and producing television, video, or film projects can take months—or even years. In this time messages may become obsolete, or the people who deliver them, unpopular, requiring even more time for revisions. Careful planning and pretesting in the early stages of project design can help keep projects on track and minimize delays.

Recognizing the potential of television, video, and film, a number of family planning organizations in the developing world, along with like-minded media professionals, are broadcasting family planning messages in a variety of formats. Many of these efforts have not been documented, and still fewer have been thoroughly evaluated. In every region, however, family planning programs are using television, video, and/or film to reach both potential and current clients. Evaluations, where available, show that these efforts can have a positive impact.

# Formats: Choosing the Right Approach

Family planning promoters have a variety of formats to choose from when working with television, video, and film. Research on the viewing habits of the audience determines which formats are best.

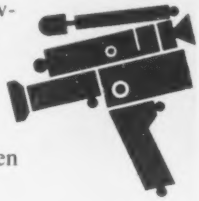
**Advertising spots** are the most common format. Although usually less than a minute long, spots are very versatile. They can inform, remind, promote, and/or teach audiences about family planning. Often spots advertising the locations of family planning clinics are televised before and after longer family planning programming. Spots also can be shown before feature films in cinemas, as can films up to about 10 minutes long, which are known as shorts.

**Soap operas and telenovelas** are dramatic serials that can incorporate family planning themes into their storylines. Soap operas and telenovelas have promoted family planning in such countries as Egypt, India, Kenya, Mexico, Morocco, and Nigeria.

**Televised mini-dramas and variety shows** can include family planning themes in their scripts. For example, in Enugu, Anambra State, Nigeria, 43 drama episodes involving family planning were incorporated into *In a Lighter Mood*, a popular television variety show (see p. 20).

**Music videos** add a visual dimension to popular songs. They are indispensable today for promoting songs. The visual component can reinforce the messages in the songs, which also are distributed to radio stations and to the public on record albums and tapes. The videos are broadcast between television programs, during variety or music shows, and in some countries on special music video channels. They also are shown on tape in public places such as stores and bars. Music videos have been used in family planning campaigns in Latin America, the Philippines, Indonesia, and Nigeria.

**Feature-length films** can focus on family planning themes, work them into their story lines, or even just make references to family planning as an everyday matter. Films made in Bangladesh, India, Mexico, Uganda, and Zimbabwe have taken family planning as a major theme. Feature films can be shown on television as well as in cinemas and are often transferred to videotape.



**Training and educational videos** for clients or for family planning workers can be easily transported. Thus the same message can be consistently delivered to many groups (see box, p. 23).

**Documentaries** explore real-life situations in a rational, factual manner. Their subjects can range widely—from personal stories that illustrate the importance of family planning for the individual to accounts of the effects of population growth on national economic welfare. Documentaries usually have less impact than entertainment formats on most viewers but may influence policy-makers and other gatekeepers.

**News coverage** of family planning program activities can provide inexpensive, credible exposure, especially where the news media are considered independent and objective. Getting positive news coverage involves careful planning, including establishing on-going relationships with journalists and providing them with accurate and newsworthy information.

# *Latin America and the Caribbean*

Latin America has about 79 million television sets and more televisions per capita than the other developing regions—one for every six people (22). It also has more channel selections than other regions, and this number is growing. The high number of television receivers reflects a relatively high per capita income. The greater number of channels is explained by private, commercial ownership of broadcasting facilities as opposed to government ownership. Latin American television has remained financially strong even in the face of severe economic problems in the region (168). In Venezuela alone, three new commercial channels began broadcasting in 1989 (156).

The popularity of VCRs and videotapes is growing quickly in the region. There are more than 9.6 million VCRs in Latin America, concentrated in the two largest countries, Mexico and Brazil. Venezuela has the most video titles available in Latin America—about 10,000—followed by Mexico with 9,000 and Argentina with 6,250. In Brazil sales of prerecorded videos grew from 1.75 million in 1988 to almost 5 million in 1989 (146, 170).

The spread of VCRs is partly responsible for the decline of Latin American cinemas. Cinema admissions have plummeted in recent years, although ticket prices have remained low despite rapid inflation. In 1988 Argentina, Brazil, Colombia, and Mexico all reported declines in admissions of 15 to 30% from the previous year (148, 150, 163).

Economic problems contribute to a decline in film production. The Brazilian government has stopped its support to the film industry. Argentina's National Film Institute, which is funded from a levy on cinema ticket sales, was forced to decrease production from 32 films in 1988 to 9 films in 1989 because of reduced ticket sales (145, 157).

### *Simplemente María*

One of the first demonstrations of the power of television to influence behavior took place in Peru in 1969. *Simplemente María* (Simply Mary) was a telenovela about a hard-working young woman, María, who rose from rags to riches after learning how to sew on a Singer sewing machine. The sales of Singer sewing machines increased dramatically as young Peruvian women, copying María, took up sewing. Also, more young women enrolled in sewing classes. Although this result was unintentional—the telenovela was meant only to entertain—the lesson was clear: dramas with educational themes and inspirational role models could attract large audiences, change behavior, and earn a profit. Singer became a commercial sponsor of the show when it was broadcast in other Latin American countries. Singer estimated that by 1977 it had earned profits of over $20 million (US) from *Simplemente María* (137, 181, 184, 186).

## Mexico

**Telenovelas**. In 1974 Miguel Sabido of Televisa, the largest Mexican commercial television network, began developing pro-development soap operas—telenovelas like *Simplemente María* with educational themes. The first, *Ven conmigo* (Come with Me), encouraged nonliterate adults to sign up for literacy classes. Each of the 280 episodes was seen by an average of 3.9 million people in the Mexico City area alone—a rating as high as any achieved in that period. Over 800,000 adults enrolled in literacy classes during the broadcast period, nine times the number during the previous year (65). *Ven conmigo* was sold to more than 15 other Spanish-speaking countries (143).

Family planning was introduced to television audiences in Sabido's second telenovela, *Acompáñame* (Come Along with Me). Some 180 episodes were broadcast between August 1977 and April 1978. *Acompáñame* promoted family planning as a means to achieve family harmony. The Coordination Office of the National Family Planning Program reported that over 500,000 Mexicans visited family planning clinics and began contraceptive use while the program was running, an increase of 32% over the previous year. Televisa contends that part of this increase was due to *Acompáñame* and part due to secular trends. A study of 319 people conducted by Televisa, however, did not find a significant difference in contraceptive use between those who watched the show and those who did not (65), although the study had some flaws.

Understand that love on the run creates bread and water children.
Tatiana y Johnny

*Tatiana and Johnny's songs encouraging sexual responsibility reached the top of the charts in Latin America with help from music videos.*

Four additional telenovelas, all commercially sponsored, were broadcast between 1979 and 1981. They promoted better treatment for children, adult literacy and nationalism, sex education for young people, and an improved role for women (65). Sabido is currently producing a soap opera about family planning and about acquired immune deficiency syndrome (AIDS). *Sangre joven* (Young Blood) will be broadcast in several Latin American countries as well as to Spanish-speaking people in the US in 1991 (181, 183).

**Using music to spread the message.** Many of Mexico's family planning projects address young people. In 1986 an innovative project combined music recordings, radio, and television. Patrick Coleman, project director of Johns Hopkins University/Population Communication Services (JHU/PCS), developed the project. Its goal was to reach young people in Mexico and 10 other Latin American countries with messages encouraging sexual responsibility. Two songs were chosen through a contest among professional songwriters—"Cuando estemos juntos" (When We're Together) and "Detente" (Wait). Two popular young performers, Tatiana Palacios, a Mexican singer, and Johnny Lozada Correa, of the Puerto Rican band Menudo, were chosen; and accompanying music videos and TV spots were produced. The records and videos were sent to radio and television stations throughout the region and heavily promoted (35, 38). "Cuando estemos juntos" debuted on *Siempre en domingo*, a popular TV variety show that reached over 150 million people. "Detente" was released a few months later (80).

"Cuando estemos juntos" reached the top of the Mexican music charts in only six weeks and remained there for over three months. "Detente" was a top-10 hit as well. Both songs were in the top 20 in the other countries where they were released (37, 80).

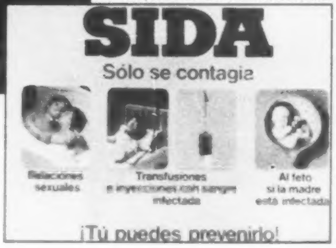
Young people understood the social messages of the songs. For example, more than 64% of 2,296 people age 10 to 19 surveyed in four metropolitan areas of Mexico six months after the campaign knew that "postpone sex" was the main message of "Detente." They also discussed the songs and their messages with friends and family. More than half said that they discussed the songs with female friends; 32% discussed them with male friends; and more than one-third, with their mothers. (The data have not been analyzed by the sex of the respondent.) The impact on behavior could not be analyzed because the referral centers mentioned in TV and radio spots and on the record cover did not track clients by age or source of referral (80).

The popularity of the songs snowballed. At the peak of its popularity, "Cuando estemos juntos" was played over 20 times per day on various Mexican radio and television stations. The performers appeared on television talk shows, and the news media gave the project extensive coverage. All this attention amounted to free publicity for the family planning message. Together, the songs, videos, television spots, and related publicity received over one million hours of free airtime. Tatiana's record album, which included the two songs, sold over half a million copies—a best-seller by Mexican standards. (Album royalties from the two songs were donated to the project.) Three years after the project ended, the songs were still being played on the radio, and over 50% of 1,200 young people surveyed in Mexico City and Lima in 1989 recalled both songs unaided (66). The "Tatiana and Johnny" project, as it is commonly known, cost

$300,000 (US). It was a collaboration between Fuentes y Fomento Intercontinentales, a Mexican marketing and production company, and JHU/PCS. Funding was provided by the United States Agency for International Development (US AID) (37, 81).

*In 1988 TV spots featuring animated clay dolls (left) taught Peruvians how to avoid AIDS. The campaign, which also involved radio, cinema slides (below), and other media, proved most effective at correcting false notions about how the AIDS virus is spread.*

Proyecto SIDA & McCann Erikson/Lima


SIDA
Sólo se contagia
Relaciones sexuales
Transfusiones e inyecciones con sangre infectada
Al feto si la madre está infectada
¡Tú puedes prevenirlo!

A second music project involving music videos did not have the same impact on Latin American adolescents. "Creo en ti" (I Believe in You) and "Frena" (Stop), both sung by Karina of Venezuela and Charlie Masso of the band Menudo, were not big hits. Many survey respondents, especially younger adolescents, did not understand the messages in "Creo en ti" and "Frena" and did not interpret the songs correctly. Young people also confused the songs with others that had similar words (66). Only one-third of young people surveyed in Mexico three months after the campaign recalled either song. Still, because of the reach of radio and television, that one-third amounts to more than one million young people.

Three important lessons were learned from this project:

- The performers must be credible to the intended audience. Many young people thought Karina and Charlie ill-suited to the messages that they were delivering. Many young people felt it was inappropriate for Charlie to sing "Frena" since it is usually the young woman who says "stop," not the young man.
- Heavy promotion with both the audience and media gatekeepers is necessary. Neither Karina nor Charlie promoted the songs after their release, and there was little promotion among broadcast executives and programmers. There were no promotional activities linking the audience with the songs or performers. Consequently, the songs were not played as often as they might have been.
- Many viewers did not think the quality of the songs or videos was as good as in Tatiana and Johnny's campaign. Although subjective, this opinion and the lower novelty value of the later songs mean that later songs might have needed even more promotion and support to achieve the same impact as the first songs.

**Commercial movies and television comedy.** The Mexican Ministry of Health is using a commercial film and a television comedy series to reach Mexico's young adults. *Va de nuez* (Let's Try It Again) is a feature-length comedy film. The plot concerns young couples facing common problems: infertility, perinatal death, and unplanned pregnancy. The movie is intended to promote communication about sexual relations and childbearing (215). Over 950,000 people saw the film in 1988 and 1989 through eight public screenings by the Ministry of Health and distribution of over 2,250 videotapes. It will be shown in commercial theaters in 1990 (214).

*Las buenas costumbres* (Polite Society) was a weekly soap opera shown on the government-owned Imevisión TV network in 1988–89. The same characters appeared each week, but each of the 26 episodes touched on a different family planning theme. For example, one episode used a dream sequence to depict pregnant men—provoking thought about men's and women's roles and at the same time amusing the audience (214, 215).

*Va de nuez* and *Las buenas costumbres* exemplify collaboration between family planning and entertainment professionals. The Ministry of Health provided technical guidance and coordinated the projects, working closely with professional scriptwriters, producers, and other technical staff. The United Nations Population Fund (UNFPA) provided half of the funding for the television series and 70% for the film. The remainder came from private producers (215). No evaluation has been undertaken.

## Peru

**TV and radio spots.** In September 1984 Peru began promoting family planning, immunization, and diarrheal disease control on television and radio as part of its Alfabetización Sanitaria (Health Literacy) campaign. A variety of TV and radio spots up to 1½ minutes long were produced. The most memorable and controversial were family planning TV spots that depicted quickly reproducing rabbits. The tag line "remember the rabbits" became a popular phrase, but some politically influential people thought comparing rabbits and people was denigrating (63).

The immunization component helped raise complete immunization coverage of children under age 4 from 34% to 47%. In contrast, the family planning component did not increase demand at public family planning clinics any more than was expected without the campaign. Lack of coordination with family planning service providers may have been part of the problem. Changes in knowledge and attitudes towards family planning were not measured. There were not enough data to evaluate the ORT component (63). This project was carried out by the Peruvian Ministry of Health with technical assistance from the Academy for Educational Development and funding from US AID.

**Claymation for AIDS prevention.** In 1988 Proyecto SIDA (Project AIDS) was established by the Ministry of Health to confront AIDS in Peru. Part of the project was a pilot mass-media campaign to increase public knowledge of AIDS transmission and methods of prevention, including condoms. Televised spots, developed by an advertising agency, used claymation—animation using clay dolls—instead of live actors (see photo, this page). Not only did this new animation technique attract attention, but it also allowed depictions of condom use and suggested changes in sexual behavior (108).

*A Brazilian TV spot featuring animated "male" and "female" hearts (right) won awards. More importantly, it brought calls and visits to the vasectomy clinic that it advertised and helped raise the number of vasectomies performed (see below).*

PROPATER & Denison

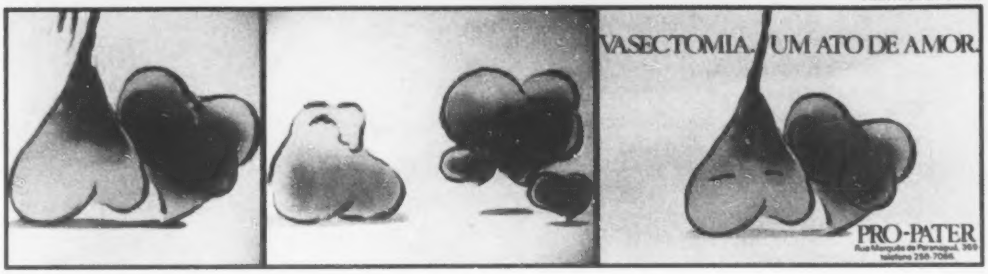
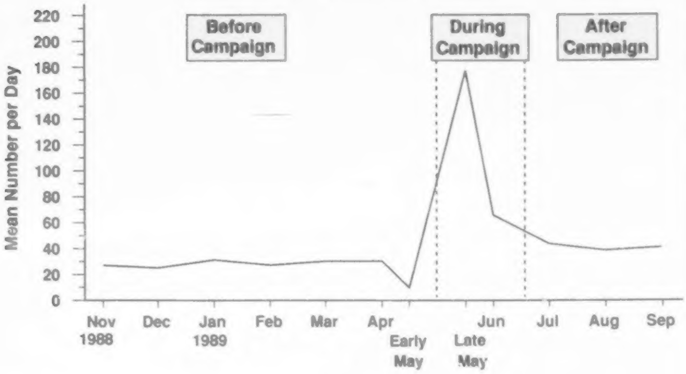
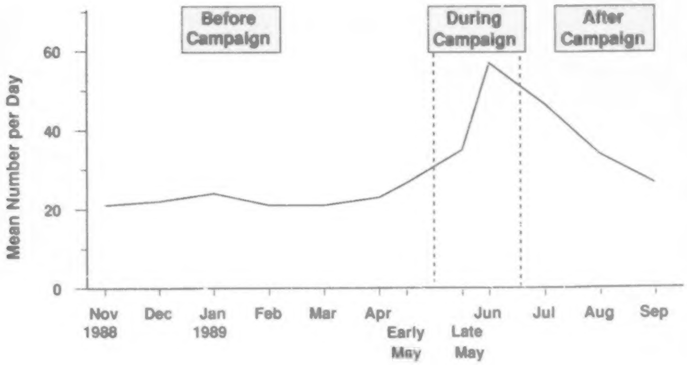

VASECTOMIA. UM ATO DE AMOR.
PRO-PATER

**Figure 1. Impact of the Mass-Media Vasectomy Campaign on Telephone Calls, Clinic Visits, and Vasectomies Performed at PRO-PATER Clinic, São Paulo, Brazil**

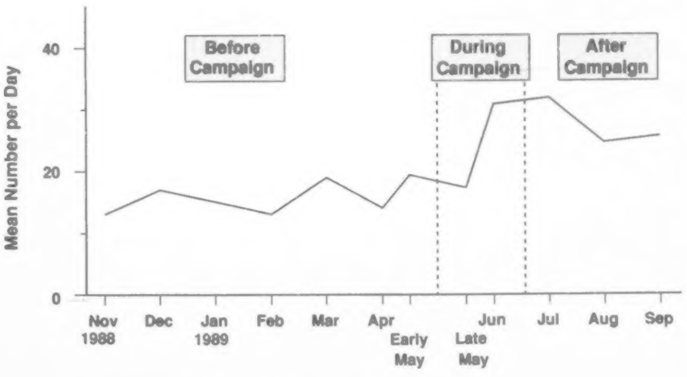
Telephone Calls



Clinic Visits



Vasectomies



Source: Johns Hopkins University/Population Communication Services (117)

For the public, the television campaign quickly replaced newspapers as the major source of AIDS information (108). According to pre- and post-campaign surveys, its greatest impact was to correct false beliefs about transmission of human immunodeficiency virus (HIV), which causes AIDS. For example, the percentage of people who thought that saliva is a major mode of transmission dropped from 67 to 43. Condom sales by street vendors and self-reported use of condoms increased. Inadequate supplies and a suspension of commercial sales and importation may have limited increases in condom use, however. Proyecto SIDA was implemented by the National AIDS Prevention Program under the auspices of the Ministry of Health with assistance from JHU/PCS, US AID, and The Population Council (108).

## Brazil

**First vasectomy TV spot.** Two animated hearts entwine...and produce a baby. And then two more. The female heart decides that three are enough and runs from her mate when he approaches her again. He returns with a vasectomy—his "act of love" (see photos, this page). The hearts unite once again, no longer worried about making more children. Viewers are then told where to call for further information on "the act of love." So goes the first Brazilian TV spot promoting vasectomy. This humorous spot, aired in two phases—May to June and two weeks in October 1989, helped increase the monthly average number of vasectomies performed at the advertised male health clinics in three Brazilian cities by 80%, from 347 to 627 per month. The number of new clients visiting the clinics increased by 97%, and telephone inquiries about vasectomy increased by 174% (26).

In São Paulo, for example, the impact of the campaign was immediately apparent. Phone calls to the clinic increased from an average of 30 per day before the campaign to almost 180 per day immediately after the first phase of the campaign began. The average number of vasectomies performed doubled, rising from 15 to 30 per day. By the end of June the number of daily calls had dropped to an average of 70 per day, and over the next four months it gradually returned to the precampaign level. The number of vasectomies leveled off at 26 per day after the first phase of the campaign, for an increase of 73% over the pre-campaign level (116) (see Figure 1). The data for the second phase of the campaign have not been analyzed.

The spot, which won, among other awards, the 1990 Bronze Lion award at the international film festival in Cannes, France, was part of an integrated mass-media effort that also involved radio, print materials, and an electronic billboard in São Paulo. Also, the campaign and related activities generated free publicity and press coverage valued at more than $100,000 (US)—equal to one-third of the total project budget of $300,000 (US). The campaign was planned and coordinated by Promoção de Paternidade Responsavel (PRO-PATER), the private, nonprofit family planning organization that operates the male clinics, with assistance from JHU/PCS and US AID (26).

## Dominican Republic

**Vickiana's "daily secret."** In August 1986 the Asociación Dominicana Pro-Bienestar de la Familia (PROFAMILIA), the Dominican Republic's affiliate of the International Planned Parenthood Federation (IPPF), released a controversial television advertisement. The spot showed Vickiana, a popular Dominican singer, dressed in a lace nightgown, along with a man wrapped only in a towel. She embraces him, turns toward the camera, and shows the audience a *Microgynon* oral contraceptive—her "daily secret for enjoying love." Opinion leaders, including church officials, were disturbed, and the spot, which had not been pre-tested, was shown for only a few weeks (69).

Yet the television spot clearly influenced sales. Pharmacists reported that, when women ask for *Microgynon*, they tended to ask for "Vickiana's pill" or the "3.9 peso pill," mentioning the new, lower price advertised in the spot. Focus-group discussions found that *Microgynon* users wanted the brand because it was advertised by a famous singer. A consumer intercept survey of 252 *Microgynon* users three months after the spot was shown found that 80% had seen or heard about the commercial, and 60% said that they had started buying *Microgynon* after the promotional campaign. Some 34% of those surveyed were first-time users of oral contraceptives, and 53% either switched to *Microgynon* from another brand or were lapsed users who decided to use pills again (58, 69).

Subsequent promotion took advantage of the momentum generated by the Vickiana spot. The original spot was not shown again, but a second television spot referred to it, and promotional materials used Vickiana's picture. Technical assistance for this project, which began after the controversial spot was aired, came from the Social Marketing for Change (SOMARC) project of The Futures Group and was funded by US AID.

## Other TV, Video, and Film

A number of other projects have used or are currently using television, video and/or film to promote family planning in Latin America and the Caribbean. They have not been closely evaluated, however. These projects include:

- A series of videos produced by the Fundación Mexicana para la Planeación Familiar AC (MEXFAM), Mexico's IPPF affiliate, for use by its "Gente joven" (Young People) groups. The videos stimulate discussion about contraception and responsible parenthood. The goal of the program is to delay childbearing until after age 20 (11). Teaching booklets are provided to help the group leader guide discussion (75, 133). One video, *El último tren* (The Last Train), is the love story of two adolescents involved in their first sexual relationship. Another recent video, *La paloma azul* (The Blue Pigeon), is an animated film for younger adolescents that describes the physical and emotional changes of adolescence (72, 124). *Música para dos* (Music for Two) is an animated video for older adolescents facing sexual and lifestyle choices and problems. It is being released in mid-1990 (1). All were produced with technical and financial support from the Japanese Organization for International Cooperation in Family Planning (JOICFP) (75). An English version of *Música para dos* was supported by UNFPA and IPPF.

## Working with *Celebrities*

**Involving a celebrity in a mass-media project can be good for both the project and the celebrity. Celebrities are often seen as more credible and trustworthy sources of information than other people, especially among young people (12). In addition to giving a professional, high-quality performance, a celebrity can:**

- Attract public attention,
- Stimulate news coverage for the project and the issue,
- Generate corporate sponsorship,
- Attract the attention of gatekeepers,
- Afford to volunteer his or her services in exchange for good publicity and press coverage, and
- Make use of his or her production and promotion infrastructures—e.g., record companies, agents, promoters—that might not otherwise be available to a family planning organization.

Using a celebrity can have its drawbacks, however. First, a celebrity may be popular with some audiences but unpopular with others. Second, the celebrity may compete with the message for attention. The audience may remember the person but not the message (105). Third, celebrities may be hard to work with. Their schedules, agents, and production companies all must be accommodated. Fourth, a celebrity who appeared to be a good role-model at first may do something later that undermines his or her credibility.

Celebrities work best when:

- The celebrity is an appropriate source of the message and is popular with the intended audience (212),
- The audience knows little about the subject or is unaware of its importance (14), and
- The celebrity is willing to participate in promotional or campaign activities (73).

Why should a celebrity promote family planning? If the resulting video, song, film, or TV program is of high-quality, widely distributed, and popular, the celebrity will get attention and exposure. Stars also benefit from the increased product sales and the positive publicity associated with supporting an important social cause such as family planning. Also, many celebrities want to help because it is a cause that they believe in.

**Now Available:**

## "VIDEO FOR FAMILY PLANNING"

### Population Communication Services Packet No. 13

A 26-minute video illustrating the uses of video and television for family planning information, education, and communication is available to selected family planning, health, and population organizations. The video features segments of family planning programming from Asia, Africa, Latin America, and the Near East. It is available in English, Spanish, or French.

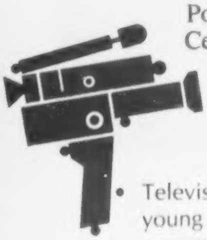
**Also Available:**

### FAMILY PLANNING FILMS

A number of 16 mm films are available from Johns Hopkins University/Population Communication Services. Family planning, health, and population organizations in developing countries may receive these films free of charge. Commercial institutions in developing countries and public and private organizations in developed countries may purchase these films. The films were produced in the 1970s by The George Washington University Airlie Center with funding from US AID.

For information on cost and availability of the video or to request a list of films, write:

Media/Materials Center
Population Communication Services
Center for Communication Programs
The Johns Hopkins University
527 St. Paul Place
Baltimore, MD 21202, USA



## CREA: A Regional Video Production Center

The Centro Regional de Audiovisuales (CREA) is a state-of-the-art video production center established in Guatemala to produce high-quality broadcast materials for Latin American audiences. CREA offers its services to both commercial and nonprofit clients under a 2-tiered price schedule. This schedule allows commercial advertising agencies to produce, edit, and finish production locally and allows nonprofit agencies to use CREA's services at greatly discounted prices (115).

CREA was established in 1988 in association with the Asociación Pro Bienestar de la Familia (APROFAM), the International Planned Parenthood Federation (IPPF) affiliate in Guatemala, with funding from US AID and technical assistance from JHU/PCS. For more information contact:

Ms. María Cristina Rosales, Directora
Centro Regional de Audiovisuales
Ave. de las Américas 16-47
Guatemala City, Guatemala

- Television and radio spots and a song that reminded young Jamaicans, "Before you be a mother, you got to be a woman" and "Before you be a father, be a man." The reggae tune, written and performed for the National Family Planning Board by Gem Myers and the Fab Five, became a hit with young people in 1985 and 1986. The National Family Planning Board obtained free and discounted airtime from the Jamaica Broadcasting Corporation and Radio Jamaica Limited to broadcast the spots. A 1986 evaluation found that 90% of respondents recalled the family planning message in the song (141).

## Asia

There is one television set for every 13 people in the developing countries of Asia. There are almost 1,800 television transmitters (including main stations and low-power relay stations) sending signals to more than 210 million receivers (22, 175) (see Table 2). Malaysia, the Philippines, South Korea, Taiwan, and Thailand, all of which have commercial stations, account for almost two-thirds of all stations in the region. Most stations in other countries are government-run (211). The number of commercial and private stations is growing, however, and many existing private stations are increasing their broadcasting power (166).

The TV, video, and in some places even film industries are growing in Asia, often through international investment or government support. Japanese companies are stepping up joint-venture television manufacturing in India to meet rapidly growing demand there as well as to export to India's neighbors (160). US companies plan to build cinemas in Indonesia, Singapore, Taiwan, and Thailand (171). The South Korean government plans to spend $39 billion (US) over the next five years to upgrade its high-technology industries, including television and VCR development and production (164).

VCRs and videotape production and distribution are gaining a foothold in many countries in the region. In the Philippines, for example, the number of VCRs has nearly doubled in the last five years, rising from 380,000 in 1984 to 750,000 in 1989. Many directors and producers who used to work exclusively in film have shifted to video (172, 217).

Asia is the home of some of the largest film industries. India's film industry is the largest in the world, having produced 781 films in 1989 (154, 158). China, Indonesia, and the Philippines also have large film industries. In 1988 China produced 158 films, and Indonesia, 82 (147, 153). In 1987, the latest year for which figures are available, 139 films were produced in the Philippines, making it the world's seventh largest film-producing country (217).

### India

India began its national family planning program—the world's first—in 1952. Ever since then it has used a variety of media, including film and television, to promote family planning. The Ministry of Health and Family Welfare has produced over 270 family planning films through the Films Division of the Ministry of Information and Broadcasting. These films range from detailed explanations of sterilization techniques for health care providers to motivational films for the public on the advantages of 2- or 3-child families (76). In the past decade restrictions on ownership of TV receivers were relaxed, satellite relays were expanded, and the government set up community televisions in villages. Thus many more Indians now see television.

**First soap opera for development.** On the streets of North India shopkeepers and merchants closed their stores early to celebrate the wedding of Badki and Ashwini, two of India's most popular television characters. What was the cause of this excitement? A TV soap opera called *Hum Log* (We People). *Hum Log* was India's first long-running television soap opera deliberately promoting development. In an entertaining and educational manner, *Hum Log* promoted equal status for women, family harmony, and smaller family size norms. An average of 50 million people watched each of the 156 episodes during the 17-month run in 1984 and 1985—the largest audience ever for a television program in India (179, 187). The creation of *Hum Log* was stimulated by David Poindexter, president of Population Communications International, who arranged for Mexican telenovela producer Miguel Sabido to conduct a seminar for Indian broadcasters on family planning soap operas (113). *Hum Log* was produced by an independent production company at a cost of $6,000 to $12,000 (US) per episode, funded by advertising revenue. It was broadcast by Doordarshan, the government television network (186).

Why was *Hum Log* so popular? There are two main reasons. First, satellite transmission was expanding the coverage of television in India. The TV viewing audience increased from 30 million in 1983 to 80 million in 1987. *Hum Log* was broadcast during this expansion, when television itself was new to many people. Second, the *Hum Log* characters seemed real to the audience, and millions of viewers identified with them. Viewers sent more than 400,000 letters, many of them addressed to the characters rather than to the actors and actresses. Many of these viewers identified with one or more of the characters, and many commented on the social issues raised by the show.

*Hum Log* was not a success at first, however. The first 13 episodes overplayed the family planning themes, including violent scenes between husbands and wives in family planning clinics. These proved unpopular with the audience. This initial "hard sell" approach was contrary to the lessons learned by Sabido in Mexico. He found that the first episodes should concentrate on introducing characters and plot lines and adopt a "soft sell" approach to the development theme. Under pressure from the Indian Parliament, the Ministry of Industry and Broadcasting, and the show's sponsors and viewers, *Hum Log*'s writer and producers decided to tone down the family planning content of the show and emphasize other social themes. *Hum Log* more subtly promoted smaller family size norms later in the series (181, 187).

To evaluate the impact of *Hum Log*, 1,170 viewers were surveyed after the series ended. Also, 500 letters from viewers were analyzed. Both indicated that the audience liked the show but that its educational impact was slight (179, 185, 189). Approximately 8% of the letters analyzed implied some behavior change. For example, some letters mentioned that *Hum Log* had led women to seek help from women's welfare organizations. Also, enrollment of potential eye donors increased after the issue was mentioned on *Hum Log*. Changes in family planning behavior were not mentioned. Although these letter writers may differ from the average viewer, given the size of the viewing audience even a small percentage change meant a large number of people responded to the show. *Hum Log* was evaluated by researchers from the Annenberg School of Communications at the University of Southern California (40, 181).

*Hum Log* also had other effects. It was the first commercially sponsored program on Indian television. *Hum Log's* popularity, and the increased sales of *Maggi 2-Minute Noodles*, the advertised product, convinced many other advertisers to sponsor television programs. This led to an increase in locally produced television serials and encouraged the Indian film industry to become more involved in television production (186).

## Bangladesh

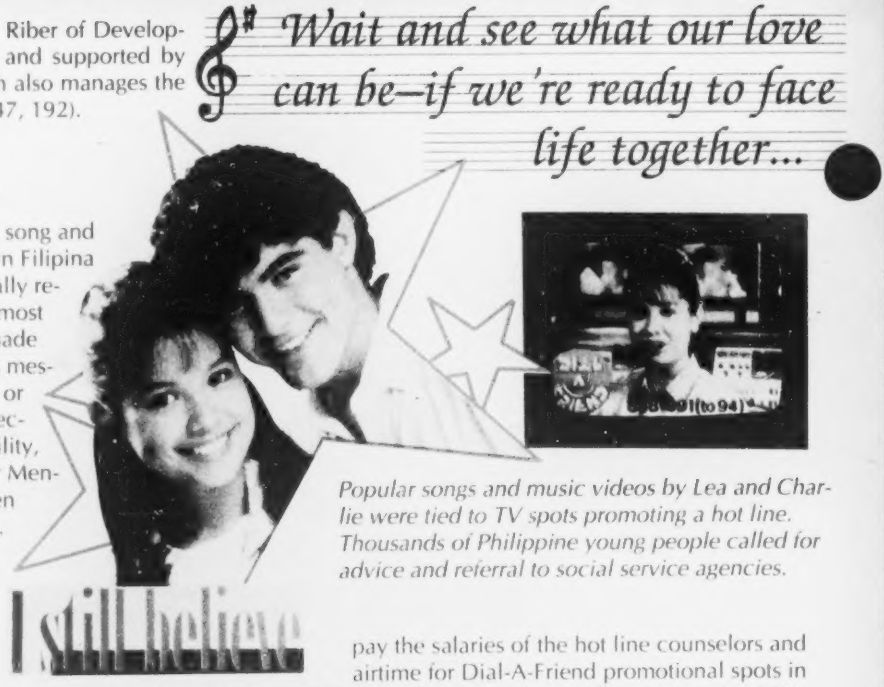
Cinema is a major entertainment medium in Bangladesh, and films are popular with all social classes. A certain basic format is popular and familiar: glamorous stars in the lead roles, melodramatic plots, music, and dancing. Working family planning messages into this format is not difficult. The result: since 1985 over 10 million people have seen *Amra Dujon* (Together), the story of a newlywed couple who decide to delay childbearing and to use family planning. Its major theme is how the couple overcomes traditions that prevent couples from discussing family planning (47, 126, 192).

A subsequent film, *Sonamoni* (The Golden Pearl), finds the same couple with their first child. When their child becomes ill, they give her oral rehydration therapy, and the child survives. They also fight the village villain to ensure a clean water supply. Both films were directed by the late Bangladeshi director Alamgir Kabir with an all-Bangladeshi techni-

DSR Inc.

*The Bangladesh film* Amra Dujon *features stars Sazzad Khan and Mitali Banerjee as newlyweds who use family planning to delay having their first child. Over 10 million people have seen the film.*

cal crew. They were produced by John Riber of Development through Self-Reliance Inc. (DSR) and supported by Population Services International, which also manages the Bangladesh Social Marketing Program (47, 192).


Wait and see what our love can be–if we're ready to face life together...
I still believe
Dial-A-Friend
8181-91(to 94)

*Popular songs and music videos by Lea and Charlie were tied to TV spots promoting a hot line. Thousands of Philippine young people called for advice and referral to social service agencies.*

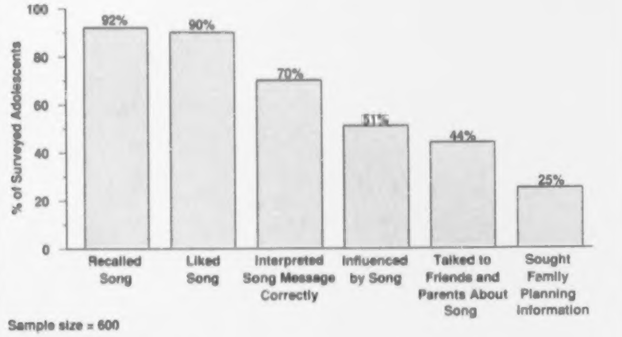
## The Philippines

In the spring of 1988 "That Situation," a song and video performed by a relatively unknown Filipina named Lea Salonga and the internationally renowned group Menudo was one of the most popular songs in Metro Manila. What made the song different from other hits was its message: Love can wait; don't fall too hard, or you'll get caught in "that situation." A second song encouraging sexual responsibility, "I Still Believe," sung by Lea and former Menudo member Charlie Masso, was an even bigger hit a few months later (125, 130).

The two songs and accompanying music videos were products of the Multimedia Campaign for Young People—a campaign designed to promote sexual responsibility among adolescents in the Metro Manila area. The campaign had two phases: the commercial and the institutional. The commercial phase established the songs and videos as hits on radio and television. The institutional phase linked the songs with the message of sexual responsibility through print, TV, and radio spots; a telephone counseling hot line, called Dial-A-Friend, that Lea promoted in TV spots; a tour of schools by Lea; and essay-writing and art contests for young people. The project was designed and implemented by the Population Center Foundation of the Philippines (PCF) with financial support from US AID and technical assistance from JHU/PCS.

An innovative feature of the project was the cost-sharing strategy. PCF negotiated a total of $1.4 million (US) worth of corporate sponsorship including free and paid television and radio time, press coverage and other publicity, promotional posters, t-shirts, prizes, and picture cards of the artists with the song lyrics—almost six times the $250,000 (US) direct cost of the project. At the completion of the project, the Philippine Long Distance Telephone Company, one of the corporate sponsors, donated funds which PCF used to pay the salaries of the hot line counselors and airtime for Dial-A-Friend promotional spots in order to continue the hot line for another six months (130).

**Figure 2. Impact of the Song "I Still Believe," Philippines Multimedia Campaign for Young People, February 1989**



Sample size = 600

Sources: Rimon (130), Silayan-Go (178)

A survey of 600 people age 15–25 taken in Metro Manila just after the release of "I Still Believe" indicated that the songs and their messages had reached their audience. Over 90% recalled the songs and lyrics; 70% interpreted their message correctly; and more than 40% had talked to their friends and parents about them. One-quarter said that they had sought contraceptive information (see Figure 2) (130, 178).

The hot line attracted more calls than it could handle. Over 8,200 calls were received on four telephone lines during the first five and a half months of the campaign, but it is estimated, based on survey responses, that about 150,000 calls were attempted (130). This reinforces the lesson that service providers should not underestimate the impact of any well-designed mass-media campaign and must be ready to respond. Within one year 22,285 calls were logged (79). Most hot line callers were single women age 15 to 24. The most common problems involved relationships with parents, peers, and boyfriends and girlfriends; sexual behavior; and self-esteem (178). The telephone counselors referred callers to 22 referral centers if further counseling was necessary.

**The Demand-Generation Campaign**. Between September and December 1988 "Dolores," a tired, old-looking mother, warned television viewers in Manila, Cebu, Iloilo, and other Philippine cities that women should not have babies every year. And former movie star, now senator Joseph Estrada urged couples to use family planning. For the first time the names of contraceptive methods were listed at the end of each TV spot. Meanwhile on radio, TV and radio personality Helen Vela countered common rumors about contraception in a series of spots.

To evaluate the Demand-Generation Campaign, six questions were added to a market research survey in the Metro Manila area six months after the campaign ended. Of the 2,900 men and women surveyed, 62% remembered the campaign. Of these, 96% saw it on television, 45% heard it on the radio, and 14% saw newspaper or other print advertising. Over 85% said that the most important message they remembered was that couples should plan their families and avoid having too many children. Over 90% approved of showing the list of contraceptive methods, even though Catholic Church representatives had objected. Most importantly, among those aware of the campaign, 58% said that they intended to visit a family planning clinic, and 26% said that they would definitely do so. Intention to visit a clinic was highest among women age 18 to 34, the primary intended audience. Actual clinic attendance was not measured, however. The campaign was funded by US AID through the Philippine Commission on Population (POPCOM). It was produced by Campaigns, Inc., a Philippine advertising company, for PCF, with technical assistance from JHU/PCS (35, 129, 221).

### Other TV and Film

Several other family planning organizations in Asia have used or are currently using television, video, and/or film in their projects, but many of these have not been closely evaluated. These include:

- "Jangan Dulu" (Wait a While, My Love), the first Indonesian song promoting family planning. Irianti Emingpraja, an up-and-coming singer, recorded the song and released it on her 1988 album. The song advises young people to wait before marrying and to take time for "studying and reflection." The song was used in a 60-second TV spot with a soundtrack also suitable for radio. The album sold over 100,000 copies. Expenses for "Jangan Dulu" totaled $3,000 (US). Its production was supported by the Indonesian National Family Planning Coordinating Board (BKKBN) and the United Nations Population Fund (UNFPA) (109).
- The Blue Circle campaign of Indonesia, which is designed to promote the family planning services of the private sector and to reduce reliance on public clinics. The campaign uses TV spots featuring various providers as well as radio and print advertising to urge people to "come to the sign of the Blue Circle" (201). After an initial 5-month media campaign in 1988, one-third of physicians and over half of midwives surveyed reported an increase in family planning clients (202).
- A weekly 15-minute program, *Population and Family Planning*, produced by China Central Television (CCTV). The program covers population policy and theory as well as health information on pregnancy and childbirth. The National Communication and Education Center for Family Planning provides free copies of the program to local stations for rebroadcast (225).
- Sixty family planning television spots produced by the Government of India. These are broadcast during evening prime-time viewing hours and via closed-circuit televi-

### *The Enter-Educate Concept at Work*

## "Mama Olu Told Me to Come"

A young woman comes to a Nigerian family planning clinic for the first time. Asked why she is there, she answers, "Mama Olu told me to come."

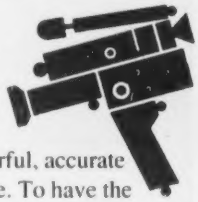
Mama Olu is a grandmother, played on televison by an actual health worker, who scolds her granddaughter for having too many children too quickly. The young woman at the clinic has seen the television spot and has decided that she does not want to be like Mama Olu's granddaughter. She has decided to use family planning (112).

"Enter-educate" is the term now widely used to describe what happened in that Nigerian clinic. An idea or behavior, such as the use of family planning, is personified or made real through entertainment (37).

Why entertainment? Because entertainment is:

- **Personal.** It moves people so that they share the joys, sorrows, and crises of the characters.
- **Popular**. Everybody likes to be entertained.
- **Pervasive**. Entertainment is everywhere.
- **Persuasive**. It can encourage people to change their behavior.
- **Profitable**. It can attract the commercial support necessary to pay for good health messages (40). (See "Entertainment Educates!" poster included with this issue of **Population Reports**.)

The enter-educate approach builds on social learning theory, as outlined by Albert Bandura and others (16). An important part of social learning is modeling: a person observes other people and uses their behavior as a model for his or her own behavior. But people cannot learn new behavior unless they pay attention to demonstrations of it. Entertainment both attracts attention and provides role models that demonstrate new, desired behavior or, as in the case of Mama Olu's granddaughter, behavior to be avoided.



In enter-education, entertainers, producers, writers, directors, technicians, and health professionals work together to produce high-quality products that appeal to the audience and at the same time deliver powerful, accurate social messages. This task is not an easy one. To have the greatest impact, an enter-educate project should:

- Be original, dramatic, and moving;
- Choose the media that reach the target audience;
- Enlist skilled and talented professionals;
- Research and pre-test concepts, scripts, and materials with the intended audience (see pp. 24–30);
- Keep entertainment in the foreground and education in the background; and
- Attract support from the commercial sector—financial, promotional, or "in-kind"—donated airtime, for example (37, 48).

Does the enter-educate approach work? Systematic research in countries as diverse as Brazil, Nigeria, Turkey, and the Philippines demonstrates that enter-educate projects can influence family planning behavior (80, 112, 117, 226) (see pp. 12, 16, 18, 20).

sion at railway stations. The spots have focused on the importance of later marriage for young women as well as on contraceptive methods (4, 34).

- The 1989 30-minute dramatic film *Nishjay* (The Decision), about the consequences of early marriage, produced by the Indian Ministry of Health and Family Welfare. It was broadcast nationwide to an estimated audience of 50 million TV viewers, and 650 copies were made for distribution via mobile cinema units. The film was made with technical assistance from DSR (193).

## Near East and North Africa

Television is expanding in the Near East and North Africa, where there is currently one receiver for every eight people and a total of about 41 million sets. There are now about 420 stations in the region, and the number is growing. About three-quarters are state-owned (22).

Use of VCRs is increasing as more titles become available on videotape. In Egypt, for example, there are an estimated 850,000 VCRs, over 1,000 video rental clubs are registered, and at least another 2,000 operate unofficially. Egypt heavily taxes video hardware and tapes, and Egyptians reportedly smuggle thousands of VCRs and videotapes into the country when they return home from pilgrimages (165).

### Egypt

**Widely seen TV spots.** In mid-1988, Egyptian television viewers saw spots such as this:

* * * * *

*Wife:* You know Mother wants us to have another baby.

*Husband:* Look, Mother-in-Law, don't we thin out our cotton plants and leave adequate space between them so that they can grow strong and healthy? Children are like that, too. You have to leave two or three years between them so that they can grow healthy.

*Mother-in-Law* (sarcastically): So where did you learn these smart things, Son-in-Law?

*Husband:* From *you*, Mother-in-Law! (9).

* * * * *

Ana Zanana, the mother-in-law in this TV spot, became a familiar figure to the Egyptian public. She appeared as many as five times a day with family planning messages in humorous dialogues. The campaign received favorable press coverage, and soon newspapers were referring to and joking about the stereotypical character, Ana Zanana.

The "Ana Zanana" spots starred Sana Younis, a well-known Egyptian actress. As Ana Zanana, she countered rumors, corrected misinformation, and encouraged audiences to seek family planning information from proper sources. Fourteen spots were produced, each with a single, clear message. The series was tied together with identical opening and closing sequences. Each spot was broadcast an average of 100 times over a year.

Television is a good way to bring family planning messages to Egyptian audiences, especially women. Over 95% of the population has access to television. Twice as many women see television as know how to read. In rural areas, where less than one-quarter of women can read, over three-quarters have seen family planning messages on TV (195).

The "Ana Zanana" spots reached the Egyptian public. In a survey of 1,789 men and women from different areas of Egypt, all had seen at least one of the spots. Virtually all—99%—understood the messages, and 70% could recall one or more of the phrases used in the spots (218).

The spots were produced by the State Information Service (SIS), which promotes the national family planning program through the mass media. The spots were made by the Center for Development Communication (CDC), a private production company in Egypt. The Academy for Educational Development (AED) provided technical assistance, with financial support from US AID through JHU/PCS.

**Video magazines for clinic waiting rooms.** Clients in family planning clinic waiting rooms often feel anxious, bored, and uncomfortable. To put waiting time to use, in 1990 the Clinical Service Improvement (CSI) project of the Egyptian Family Planning Association developed a "video magazine." Each 2-hour video consists of excerpts of well-known entertainment from Egyptian television, interspersed with previously broadcast family planning spots, messages about specific contraceptive methods, and spots about CSI. The videos are designed to entertain, educate, and make clients feel more comfortable and confident while they wait.

Preliminary evaluation of the first video, entitled *Health and Happiness*, found that, surprisingly, clients liked the specific information about family planning better than the entertainment. The best liked segment described IUD insertion. Clients also liked segments in which they recognized the clinic personnel. The video made them more confident about CSI, but it did not encourage them to ask more questions about family planning (196). The video was made for CSI by CDC with funding from US AID and technical assistance from JHU/PCS.

### Turkey

An estimated 240,000 Turkish women began using or switched to modern methods of contraception after an intense multi-media family planning campaign in late 1988. Between October and December Turkish audiences saw more than five hours of family planning programming on

SIS & CDC

*The comic mother-in-law Ana Zanana, played by popular actress Sana Younis, became familiar throughout Egypt in television spots countering rumors about family planning.*

television. Each of the feature programs reached at least 20 million people, or 55% of adult TV viewers, including an estimated 6 million married women of reproductive age—over 80% of the intended audience (207, 227).

In all, the campaign produced and aired 10 humorous and dramatic spots, a 3-part drama, a documentary, and a family planning motivational program. The spots were shown a total of 145 times, often during prime viewing hours. A radio drama, eight radio spots, two posters, brochures, calendars, a photo exhibit, and an educational film for use at family planning clinics also were produced (207, 224, 227).

The campaign enlisted the help and support of both political leaders and the mass media. It began with a one-day symposium for more than 600 policy-makers and journalists to introduce the campaign and to enlist their support. Because of this symposium and because of the high quality of the productions, Turkish Radio and Television donated airtime. Press coverage provided free publicity. In fact, donated airtime, press coverage, and related publicity were valued at about $2 million (US), more than six times the $232,000 (US) cost of the project (207, 226, 227).

Baseline and postcampaign surveys in September 1988 and February 1989, involving more than 2,000 married women age 15 to 44, found significant increases in awareness and approval of family planning and in use of modern contraceptive methods (see Figure 3). Also, 63% of those surveyed reported discussing family planning with their husbands after seeing a family planning message. More than 10% said that they had visited a family planning clinic, and more than 20% intended to do so. Use of modern methods increased from 39% to 42%. Use of IUDs—the major modern method in Turkey—increased from 16% to 22%. Some of the new IUD users had been relying on withdrawal previously, while others had been using condoms or oral contraceptives. Projected to the national population, the increase in IUD use would amount to about 450,000 new IUD users (226).

The campaign had its greatest impact on women with one to five years of education. In this group contraceptive use increased from 31% to 44%. Contraceptive use did not change among women with no education. Among women with more than five years of schooling, it increased slightly. One explanation for these differences may be that 55% of uneducated women said that they saw any of the campaign compared with 82% of women with some education (116).

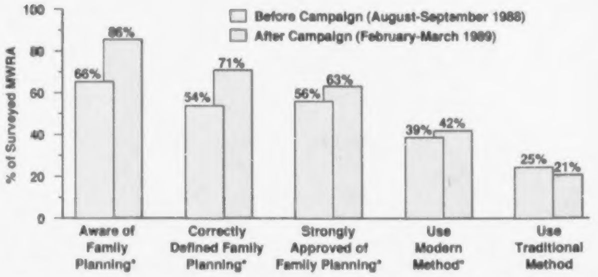
The campaign was planned and carried out by the nonprofit Turkish Family Health and Planning Foundation with support from US AID and technical assistance from JHU/PCS.

## Other TV and Video

The use of TV and video in family planning projects in the Near East and North Africa is expanding. Current or future projects include:

- A training program conducted by the Egyptian Ministry of Health using a 30-minute video, *Counseling: An Art and A Science,* to teach counseling techniques to its clinical staff. The video follows the GATHER acronym developed by JHU/PIP (see **Population Reports**, *Counseling Makes a Difference,* J-35, November 1987, and *Counseling Guide,* J-36, December 1987). The video was produced by the CDC with funding from US AID and technical assistance from JHU/PCS (205).

**Figure 3. Impact of the Turkish Multimedia Campaign of October–December 1988 on Family Planning Awareness, Attitudes, and Behavior**



MWRA = Married women of reproductive age
*Statistically significant difference
Sample size = 2,147 before campaign, 2,145 after campaign

Source: Zet (227)

- *The Family House,* a commercial "public health" soap opera planned for TV broadcast in Arabic-speaking countries. Topics for the first 15 episodes include child spacing, ORT, and prevention of accidents in the home. *The Family House* will be produced by the CDC in Egypt with initial funding from US AID, the Ford Foundation, and the International Development Research Centre of Canada and with technical assistance from JHU/PCS. After initial funding ceases, CDC plans to continue producing *The Family House* with advertising revenue.
- A series of 11 TV spots introduced to Egyptian audiences by SIS in March 1990. Known as the "Diary of a Doctor" series, each spot features Karima Mukhtar, a well-known Egyptian actress, as a caring doctor telling stories that she has heard about family planning users and their troubles. Seven of the spots mention specific family planning methods. The spots were produced for SIS by CDC, with funding from US AID and technical assistance from JHU/PCS. Ten more spots in the same format are planned for broadcast in late 1990 (87, 88).

# Africa

In Africa more and more people are seeing television, although there are still relatively few receivers—about 17.2 million, or one for every 29 people (22). Televisions are affordable to middle-class, urban dwellers, and it is common to find homes with television but no telephone (197). There are about 300 broadcasting stations in Africa (175). Television transmissions cover from 20 to 80% of national territories (131).

Most African countries cannot afford to produce their own shows. Nigeria and Cameroon are among the few that have developed their own production capacity (206). Programs from the US and Western Europe are imported at low cost, increasingly via satellite. Francophone Africa, for example, has been receiving satellite programs from the International French Channel (TV5 Europe) since May 1989. MTV Europe, the music video entertainment channel, began broadcasting five hours a day on the Kenya Television Network in June 1990 (89).

The growth of VCRs and videotapes in Africa presents serious competition both to national TV broadcasts and to local cinemas. The number of VCRs, at about 1.2 million, is still small, but it has tripled in the last five years, a percentage increase almost four times that for TV receivers (see Table 1). In Ghana, for example, nearly 10% of all television owners have VCRs. Since TV broadcasting is limited to 39 hours per week, many people are watching videotapes (174).

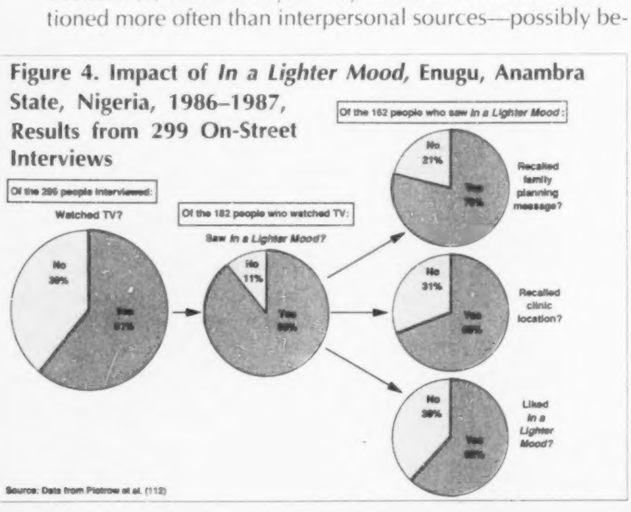
## Nigeria

**Using the "enter-educate" approach.** The power of television to bring clients to family planning clinics was demonstrated in three cities in Nigeria—Ilorin, Enugu, and Ibadan. In all three areas, the enter-educate approach was used to develop entertaining spot announcements and to incorporate family planning messages in existing shows that already attracted large audiences. In Ilorin five TV spots were part of a 3½-year multi-media campaign designed to bring clients into Ministry of Health clinics. Clinic attendance increased from 254 in January 1984 to 3,545 in March 1987—a 13-fold increase. Part of this increase can be attributed to the campaign and part to other factors (112).

In Enugu 43 dramatic episodes on family planning were incorporated into the popular variety show *In a Lighter Mood*. During this period attendance at the major clinic in Enugu increased from 50 clients per month to more than 120. After the first month an average of 45% of clients mentioned the show as their source of referral. In a streetcorner recall survey, more than half had watched *In a Lighter Mood* the night before. More than two-thirds of those could give the address of the clinic mentioned (see Figure 4).

Based on *In a Lighter Mood*, a similar project was developed in Ibadan. For six months starting in October 1987, family planning themes were incorporated into two ongoing television programs: 26 episodes of the drama *Koko Close*, the most popular show in Ibadan, and 13 episodes of *Mulero*, a weekly magazine program for women. Spots advertising family planning clinics also were aired. The number of new clinic clients grew almost threefold during the broadcast period. Clinic clients said that the shows brought them to the clinic. The two sources of referral most often cited were hospital and clinic personnel (30%) and television (24%). Initially, radio was the third most important source, but in the second month of the campaign it was overtaken by friends, spouses, and relatives. The findings are notable because (1) such surveys rarely find the mass-media mentioned more often than interpersonal sources—possibly because the mass-media usually carry so little family planning information—and (2) the increase in friends/spouse/relatives referrals suggests that the TV programs may have encouraged interpersonal communication (112).

**Figure 4. Impact of *In a Lighter Mood*, Enugu, Anambra State, Nigeria, 1986–1987, Results from 299 On-Street Interviews**



Source: Data from Piotrow et al. (112)

All three of these projects were developed with support from the state and federal ministries of health and the Nigerian Television Authority and with funding from US AID and technical assistance from JHU/PCS. Because the family planning messages were incorporated into existing programs, the cost was relatively low. The *In a Lighter Mood* project cost $38,297 (US) over two years, and the one-year *Mulero/Koko Close* project cost $13,606 (US) (112).

**Using music to create awareness.** In September 1989 "Wait For Me" and "Choices," two family planning songs performed by stars King Sunny Ade and Onyeka Onwenu, were released in Lagos on King Sunny Ade's album "Wait For Me." Two music videos, launched on *Morning Ride*, a popular Saturday morning TV program, accompanied the songs. The songs were heavily promoted among both gatekeepers and the intended audience. A press conference featuring the performers launched the songs. King Sunny Ade and Onyeka toured hospitals and clinics, trailed by TV news cameras. Over 30 newspaper and magazine articles were written about the album's release.

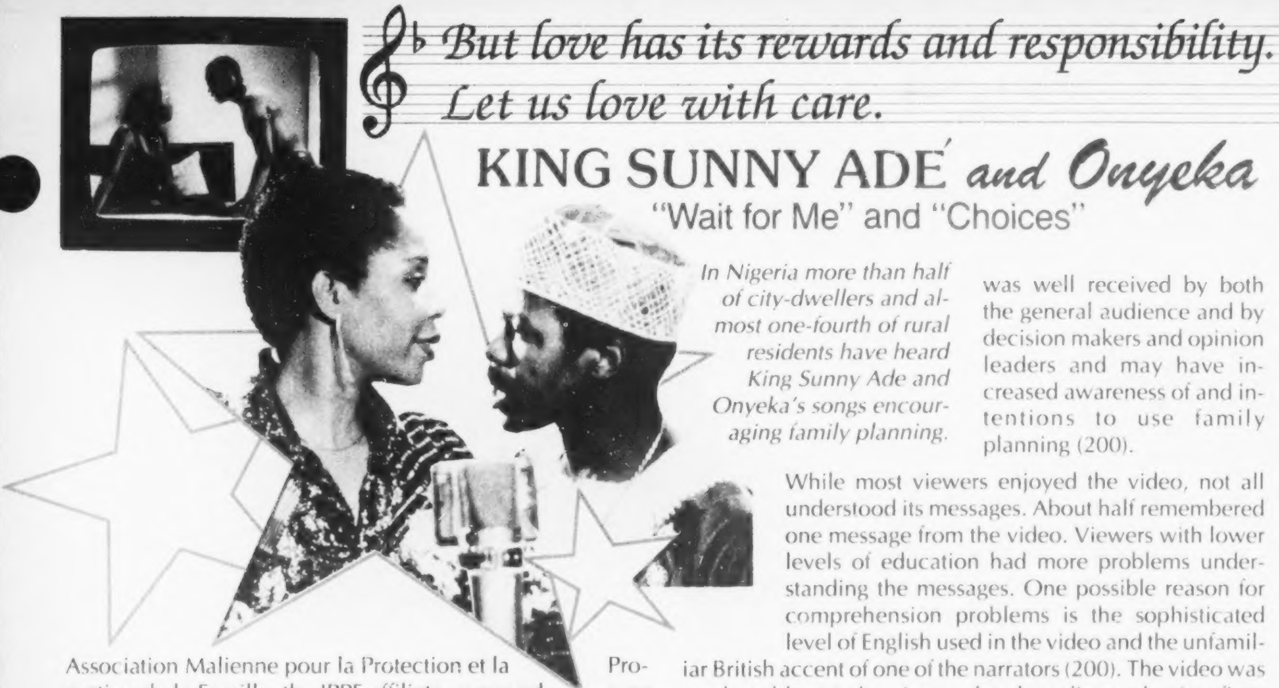
A preliminary evaluation of the project five months after its launch found that 57% of 1,500 urban people and 22% of 300 rural people saw the videos or heard the songs. In the urban areas 48% said that they had spoken to their friends about the songs, and 27% said that they had spoken to their sexual partners about them. The interviews also found that more than 90% agreed or strongly agreed with the messages that couples should practice family planning and have only the number of children that they can care for (121). The impact of the songs on family planning behavior has not yet been evaluated.

The project demonstrates the cost-effectiveness of mass-media promotion. The total cost of the project was $293,400 (US). Because of the extensive reach of mass media, the project reached 46 people of reproductive age for each $1 (US) spent, or 2.2¢ (US) per person (118). The project was implemented by the Planned Parenthood Federation of Nigeria with funding from the Federal Ministry of Health of Nigeria and US AID and technical assistance from JHU/PCS. The two stars provided their services free to the project, and King Sunny Ade donated the royalties from the two songs to charity. Commercial recording companies produced and distributed the album and audio cassettes (120).

## Mali

The *Koteba* project in Mali combined the popularity of traditional theater with the wide reach of television. A *koteba* is a traditional Malian theater piece used to express the everyday concerns of the people. In this family planning *koteba*, Pade, who has two quarreling wives and many small children, is compared with his friend who has one wife and fewer children because he uses family planning. Eventually, Pade decides to use family planning, and he brings his wives to the clinic, where they learn about various methods. The *koteba* was shown on Malian television three times in late 1987.

The show was not only immediately popular but also made a lasting impression. About a year after the broadcasts the


But love has its rewards and responsibility.
Let us love with care.
KING SUNNY ADÉ and Onyeka
"Wait for Me" and "Choices"

*In Nigeria more than half of city-dwellers and almost one-fourth of rural residents have heard King Sunny Ade and Onyeka's songs encouraging family planning.*

Association Malienne pour la Protection et la Promotion de la Famille, the IPPF affiliate, surveyed over 500 clients in family planning clinics. About 25% remembered the *koteba*. The project was a joint effort of several organizations including Radiodiffusion Télévision du Mali (RTM), the Institut National des Arts, US AID, and JHU/PCS. Because RTM donated broadcast time and use of its production equipment, the project cost only $3,000 (US) (144).

## Liberia

Translating statistics on the impact of rapid population growth into easily understood language and images is a challenge. *A Future for Our Children*, a 30-minute video produced in Liberia, uses visual examples from everyday life to demonstrate the effects of too many people on already overburdened human services. Scenes show unemployed young people loitering in the streets, a teacher trying to cope with a class too large for her classroom, and people living in cramped housing.

*A Future for Our Children* was designed to promote awareness among both policy-makers and the public about population growth and to tell them about family planning services. It is based on the RAPID II computer projection of the effects of population growth on essential services, developed by the Resources for the Awareness of Population Impact on Development (RAPID) project of The Futures Group. The videotape was broadcast on prime-time television five times in late 1985 to an estimated audience of over one million. The Family Planning Association of Liberia (FPAL) transferred the video to film and used mobile vans to show it to rural audiences as part of its family planning mobilization activities a few months later (119).

The video was evaluated in several ways. After the first two broadcasts on national television, FPAL conducted on-the-street interviews with people who had seen it. This informal evaluation found that most people liked the video and that it brought population issues and the need for family planning to their attention (119). A more formal evaluation, although without before-and-after comparisons, found that the video was well received by both the general audience and by decision makers and opinion leaders and may have increased awareness of and intentions to use family planning (200).

While most viewers enjoyed the video, not all understood its messages. About half remembered one message from the video. Viewers with lower levels of education had more problems understanding the messages. One possible reason for comprehension problems is the sophisticated level of English used in the video and the unfamiliar British accent of one of the narrators (200). The video was produced by Medex, Inc., a local media production firm, with funding from US AID and technical assistance from JHU/PCS.

## Zimbabwe

Rita and Richard are high school students. They are in love and looking to the future. Suddenly, Rita's world falls apart: she discovers that she is pregnant. *Consequences*, a film produced in Harare, is their story. As with many adolescents' pregnancies, it is not a happy one.

The messages of the film were developed through focus-group discussions with adolescents and parents across Africa (194). Several African writers developed a script that is entertaining and at the same time delivers a powerful message. *Consequences* is the first dramatic film made in Zimbabwe entirely with a local cast and crew. It was produced

DSR Inc

*Richard learns from his girlfriend Rita that she is pregnant in the Zimbabwean film* Consequences. *The dramatic portrayal of two young people brings home the message of sexual responsibility.*

by John Riber of DSR in Harare with funding from the Pathfinder Fund and IPPF. The total cost for the 3-year project was approximately $350,000 (US) (193).

Pre-testing of the film with 300 adolescents, adults, and family planning providers in Kenya, Nigeria, and Zimbabwe found that 99% enjoyed the film, and 98% said that they would recommend it to friends (46). A pre-test audience in Ghana was so enthusiastic that they insisted the film be shown to an additional 2,000 villagers (101). Over 900 copies have been distributed throughout Africa, and it has been broadcast and rebroadcast on television in a number of countries. Pirated copies can be found in video clubs, further indicating that a film with a social message can be popular (192).

Versions of *Consequences* have been produced in English, French, Portuguese, Swahili, and a number of local dialects. It is available to qualified organizations through DSR (see box, p. 28).

### Other TV, Video, and Film

Many other family planning projects using TV, video, or film are completed or underway in Africa. Among them:

- Approximately 100 episodes of *Tushauriane*, a Kenyan soap opera, were aired between 1987 and 1989. *Tushauriane* dealt primarily with family planning but also with conflicts over land, intertribal marriages, and the differences between urban and rural cultures. The soap opera closely followed Miguel Sabido's approach. It was described at the time as the "most popular program on Kenyan TV" (7). The program was eventually cancelled, however, due to lack of funds and loss of political support (7, 102, 142, 181).
- *La Mésaventure* (The Misadventure) is the story of Gisèle, a young student in Brazzaville, who discovers that she is pregnant and the difficulties that she has telling her parents and friends. She advises her friends not to make the same mistake. The 1989 video was made in the Congo by IPPF. It will be distributed by the Union of National Radio and Television Organizations of Africa (URTNA) to broadcasters throughout francophone Africa (68, 83).
- In May 1990 URTNA conducted a workshop for television broadcasters in Dakar. One result of this workshop was *Afrique: Santé* (Africa: Health), a talk show featuring African broadcasters appealing to donors for support of family planning radio and TV programming. The show also featured eight minutes of a family planning drama staged at the workshop. *Afrique: Santé* was broadcast in Senegal in June 1990. Funds for the workshop came from US AID with technical assistance from JHU/PCS (86).
- *The Last Pregnancy* is a traditional Ghanaian drama that tells the story of two classmates 20 years after their graduation. One man is very successful and has two children, while the other is poor, has many children, and wants more even though his wife is weak and sick. One of the most popular drama troupes in Ghana performed the drama. It was videotaped for TV broadcast, distribution on videocassette, and transfer to 16 mm film for showing to rural audiences from Ministry of Health viewing vans. One unexpected off-shoot of *The Last Pregnancy* was the popularity of its theme song, "Awo Dodo." Audiences at a pre-test began singing the song as they were leaving the showing. The song was then further pre-tested and chosen for use in a year-long mass-media campaign to promote family planning in three regions of Ghana. The drama was produced by the Ministry of Health—Health Education Division and Lintas Ghana Ltd., an advertising agency, in early 1990 (100).
- The Ghanian Ministry of Health—Health Education Division and the Ghana Broadcasting Corporation are currently producing *Our Concern*, a 45-minute television drama of a secondary school debating contest on the subject "Large families: Are they a thing of the past?" The drama alternates scenes of the debate with flashbacks to situations illustrating the debating points. By the end of the film the students conclude that smaller families are preferable in modern-day Ghana. The film is scheduled for completion and distribution in mid-1990 (101). It was

(Text continues on p. 24)

## URTNA: Promoting Family Planning Broadcasts

The Union of National Radio and Television Organizations of Africa (URTNA) represents broadcasting agencies in 47 African countries. In the field of health and family planning programming, URTNA provides:

- **"Family Health and Communication," a newsletter published four times a year.** Published in English and French, each issue contains ready-to-broadcast information on health and family planning subjects. Recent topics include child spacing, AIDS, family planning services in the workplace, and a discussion of population issues for journalists.
- **Training and financial support for radio and television broadcasters.** URTNA has conducted two workshops on television production, one in English and one in French, and a conference for policy-makers to increase their awareness of population issues. Family planning films and videos are being made in Burkina Faso, Cameroon, Côte d'Ivoire, Ghana, Kenya, Nigeria, Senegal, and Zimbabwe. URTNA will distribute these films and videos throughout Africa (83, 209).
- **Distribution and exchange of materials among member countries.** The Programme Exchange Centre (PEC) in Nairobi promotes and coordinates the exchange of programs among URTNA member countries. For example, the PEC distributed the film *Consequences* (see p. 21) to every TV organization in Africa. As a result, *Consequences* is now the most widely seen "made in Africa" film. URTNA also will distribute the video *La Mésaventure* to broadcasters in francophone Africa in late 1990 (see above) (83, 210).

Funding for these specific activities has been provided by US AID, with technical assistance from JHU/PCS. For more information write:

URTNA
Mr. Kassaye Demena, Secretary General
101, rue Carnot B.P. 3237
Dakar, Senegal

# Video Expands Training and Teaching Possibilities

The development of portable, inexpensive, and easy-to-use video equipment offers an important new opportunity for training and instruction of both providers and clients. Already, family planning programs are using video equipment to:

- Play prerecorded tapes that explain contraceptive methods to clients and orient them to clinic procedures,
- Teach counseling skills or technical procedures to providers,
- Develop specific training materials for local situations,
- Market services and products to clients and prospective projects to funding agencies,
- Provide immediate feedback on trainees' performance in role-model exercises, and
- Document program accomplishments.

F. Whitney, JHU/PCS

*A volunteer from the Agrarian Reform Beneficiaries Association talks to Philippine villagers, shows a videotape, and uses a flip chart to describe and explain family planning.*

Although not yet universally available, video is cheaper and easier to produce and show than film. The videotape and equipment are less expensive. Videotape is reusable and does not have to be processed. Depending on how the video will be used, production standards need not be as demanding as they are for broadcast television and film. Little technical training is required to use simple video equipment or to produce nonbroadcast videos. VCRs are more durable than film projectors, and replacement parts may be easier to find (188).

Another advantage of video in training is that videotapes can be viewed immediately after recording. For example, a training program in Egypt used video cameras to record trainees' role-playing exercises. The videos were played back at once. Trainees could see their own performances and could benefit from their colleagues' critiques (205). Video cameras also can record project progress—a visual record-keeping. Meetings with visitors and officials can be recorded. So can field situations that can be shown to training sessions or used to demonstrate local conditions.

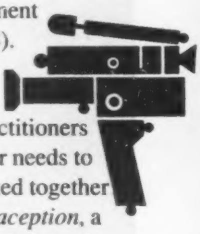
Videos, like film, usually work best as part of a larger training or educational program that may include classroom training, hands-on practice, interpersonal counseling, and/or role-playing. In family planning programs videos are most often used to teach providers interpersonal communication skills, to demonstrate technical procedures, and to teach and inform clients.

## Counseling Training Videos

Prerecorded training videos can help family planning providers improve their teaching and interpersonal communication skills. Training videos have been produced in such places as Kenya, Colombia, and Egypt (see p. 19). In Kenya a video produced by the Family Planning Association of Kenya (FPAK) and the Association for Voluntary Surgical Contraception (AVSC), teaches counseling principles to new family planning providers. The video, *Counseling: Helping People Make Family Planning Choices*, features Kenyan counselors, field workers, physicians, nurses, and clients talking about their experiences. The Program for Appropriate Technology in Health (PATH) developed the script, supervised production, and conducted extensive pre-tests in Kenya (2). The video adapts the steps in counseling developed by JHU/PIP (see **Population Reports**, *Counseling Guide*, December 1987). The video has been translated into French and is currently being used in a number of African countries.

In Colombia Cine Mujer, a women's film collective, collaborated with the Pathfinder Fund to produce *Calidad*, a video on quality of care. *Calidad* uses skits, caricatures, and interviews with clients to show family planning providers how they can improve services and make clinics more comfortable for clients. It points out that clients served with care are less likely to be afraid and more likely to respond positively to family planning. Over 200 copies of *Calidad* have been distributed to family planning projects and associations in Latin America (19).

Video also can train trainers. *Facilitation: Techniques in Training* is a 54-minute video that shows African trainers attending a workshop on common training problems. It shows the trainers' different leadership styles. The video is designed to be stopped periodically so that viewers can discuss the situations shown on the screen. The video was produced in Harare, Zimbabwe, by the Media for Development Trust with support from Norway's Redd Barna (8).



## Technical Training Videos

Technical training videos for family planning practitioners provide a visual demonstration of what the viewer needs to do. For example, FPAK, AVSC, and PATH worked together on *Minilaparotomy for Voluntary Surgical Contraception*, a technical film on voluntary female sterilization. It is intended to be shown as part of a complete week-long training program for doctors and operating-room nurses. In addition to demonstrating key points about surgical techniques, the video describes how to make the patient comfortable and how to reassure her. Thus it is also appropriate for counselors, educators, and program directors. **(Continued on next page)**

## Video for Training and Teaching . . . Continued

The International Planned Parenthood Federation (IPPF) is introducing a new series of technical videos on contraceptive methods. The first, *The Intrauterine Device*, covers counseling, screening clients for contraindications, possible side effects and complications of IUD use, and techniques for inserting IUDs. The video uses animation to explain the female reproductive system and the fitting of IUDs. PATH pre-tested the video in Zimbabwe and Sierra Leone. Service providers in both countries found it informative, clear, and useful. It was so popular in Bangladesh that the Family Planning Association of Bangladesh wants to translate it into Bengali. In Chile the Asociación Chilena de Protección de la Familia (APROSA) is working on a Spanish version. The next video in this series will be on barrier contraceptive methods (35).

The Johns Hopkins Program for International Education in Reproductive Health (JHPIEGO) also has produced a training video on the IUD. This video is more clinical than the IPPF video. It demonstrates use of the "no touch" technique for insertion and removal of the Copper T-380A IUD. The techniques are demonstrated on an actual client. The video also covers patient selection, screening, and counseling. It is intended for training physicians, nurses, and midwives. The video was produced in Thailand by the Regional Training Center in Reproductive Health, Department of Obstetrics and Gynecology, Chulalongkorn University in collaboration with JHPIEGO at a cost of less than $10,000 (US). It is available in Thai and English and will be available in French and Spanish in late 1990 (92).

### Videos for Clients

Some recent videos are designed to teach clients about family planning and how to use methods correctly. These videos are shown in clinic waiting rooms or community centers where it is difficult to show films. For example, IPPF produced *Two Mothers*, a video that contrasts the lives and health of two Kenyan mothers—one who has spaced her children and the other who adopts family planning only after she has had 12 children. It investigates the benefits of family planning for both the mothers and their children. Clients can take home a companion booklet that explains the story and reinforces its lessons (35, 67). In Egypt "video magazines" specifically for clients in clinic waiting rooms combine contraceptive information with entertainment (see p. 19).

developed in part as a result of a video training workshop cosponsored by URTNA and JHU/PCS.

- *Dangerous Numbers* is a docu-drama intended to dramatize the effects of overpopulation in Ghana as seen through the eyes of two coworkers—one who plans his family and one who does not. It is being produced by the Ministry of Health—Health Education Division and the National Film and Television Institute and is scheduled for TV broadcast in late 1990 (101).
- The Ministries of Health and Information of Oyo State, Nigeria, are producing a 30-minute dramatic video for rural audiences. It will emphasize family planning, ORT, and childhood immunization. The video will be transferred to 16 mm film and shown by mobile cinema vans in Oyo State as well as in four other Yoruba-speaking states starting in late 1990 (43, 115).

## Poster Available

Entertainment Educates!

A copy of the "Entertainment Educates!" poster included in this issue of **Population Reports**, printed on heavy paper and suitable for mounting or framing, is available rolled and mailed in a tube for $5; additional folded copies, $2 (US) each. Send payment in $US to:

**Enter-Educate Poster**
Population Information Program
Center for Communication Programs
The Johns Hopkins University
527 St. Paul Place, Baltimore, MD 21202, USA

## Building a TV, Video, or Film Project

Family planning organizations that want to use television, video, or film need to know how to develop a communication project, what research is involved, and some basic lessons about influencing behavior through the mass media. The communication project process can be visualized as the letter "P." The "P" consists of five steps. These steps apply to any communication project or medium but here are discussed in terms of television, video, and film.

### The "P" Process

### *Step 1: Analyze the Situation*

The analysis, or planning, step provides the foundation for the entire "P" process. In this step the problem, the audience, and the media environment are studied. The following questions should be considered:

- What is the problem and what is already known about it? Is there a feasible solution? Will a communication project help people take advantage of that solution?
- Who is affected by the problem? Whose actions can help solve the problem? These people are usually the intended audience or audiences. The answers to the above questions help define the goals of the project.
- What is the best way to reach the intended audience? What are the audience's media preferences and habits? Are there any legal or social obstacles to using television, video, or film to bring family planning messages to this audience?
- What internal and external resources are available to the family planning organization—in-house experts, links

with performers, corporate sponsors, funding, technical assistance, and so on? What organizations and individuals can be enlisted to design, produce, distribute, and market the communication products?

**The problem should be clearly defined** in order to specify potential solutions and audiences. For example, the problem "low clinic attendance" could mean that the clinic is not attracting enough new clients, that clients are not returning for follow-up care, or both. These are different problems, which require different strategies and involve different audiences. Thus a clearer definition of the problem is necessary.

**A thorough understanding of the intended audience** is needed to develop an effective message. Preliminary research on the interests, attitudes, and activities of the intended audience, including media preferences and habits, is crucial. The audience's attitudes towards a particular health behavior must be gauged, including willingness to adopt new behavior, perceived benefits and barriers to adoption, and common rumors and misperceptions. Even the language people use in talking about family planning is important. To gather such information, focus-group discussions, surveys, and interviews are usually needed.

**An examination of the media environment** reveals the channels of communication available. Legal or social obstacles may rule out certain media or may restrict content. For example, in many countries contraceptive advertising on television is prohibited, but general programs about family planning are not. Media gatekeepers—politicians, broadcasting executives, television programmers, radio announcers, journalists, and others who control access to media—should be involved in this stage. Their support is crucial because they determine what is shown.

Also, **the capabilities of the family planning organization** to carry out a mass-media project must be analyzed. Television, video, and film projects are time-consuming and expensive. Are there personnel and money to carry out the project? What should be done in-house, and what by outside organizations? Who could be in charge? What other organizations, consultants, and corporate sponsors can be enlisted to help? Who could supply technical advice and production facilities and services? Usually, local advertising agencies and production companies are identified at this point. While nontechnical training videos for in-house use might be made by amateur directors and actors from the family planning organization staff, anything more widely circulated—and certainly anything intended for the public or for clients—should be made by media professionals. Producing an attractive, high-quality project requires talent. Without imaginative, creative people in key roles from project managers to directors and performers, a good, well-produced product is possible, but a real hit is unlikely. For the project manager, finding talented people is as important as following the "P" process.

Finally, it is important to **begin planning early for evaluation.** Evaluation is crucial in all projects to determine their effectiveness, to identify areas for improvement, and to contribute to better planning for the next project. Evaluation should begin as soon as specific, measurable objectives are set for a project. Communication projects should be designed to change the knowledge, attitudes, or practices of specific audiences, and, from the start, evaluation methods must be chosen that can measure those anticipated changes. Thus data must be collected both before a project begins, to establish a baseline and to guide further planning, and after implementation.

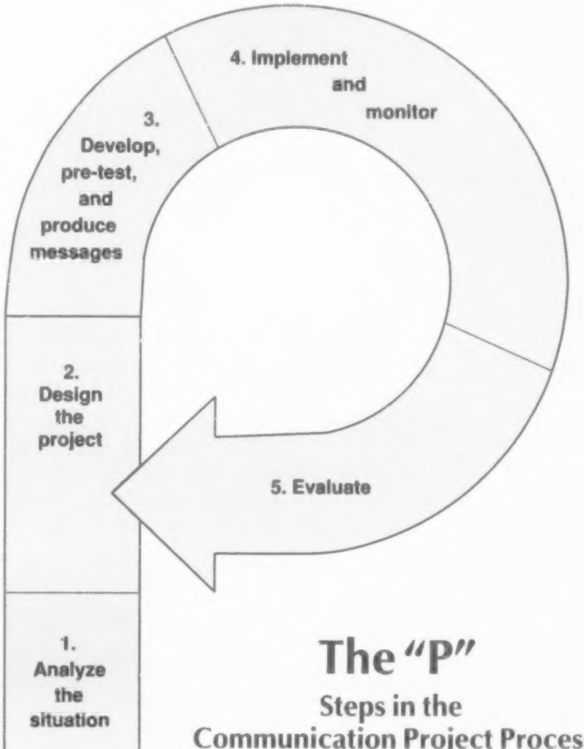
## *Step 2: Design the Project*

In Step 2 the messages, formats, and media are chosen, based on information gathered in Step 1. The design step should stress strategic planning and development of the basic theme, or pitch, of the project. The basic questions that need to be answered in this step are:

- What are the best messages, sources, and media to influence the intended audience, and,
- Given available resources, what is the best project design?

**Message development** begins with specifying the awareness, attitudes, or practices that need to be influenced and determining which can be most influenced through communication (15). The next step is deciding what information to give to the audience and how to appeal to it. Messages with high or moderate emotional appeals are most persuasive (55). In general, positive appeals—messages and/or situations that stress the benefits of healthy behavior, that give a person a sense of control, and that reduce anxiety or fear—are more likely to be remembered and to change behavior than negative ones (55, 74).

Humor and fear are often used in family planning messages, but their effectiveness is unclear. In many cases humorous messages are not understood and thus do not influence behavior as well as dramatic or straightforward approaches (50, 55). In Kenya pre-testing of five comedy shorts and one drama found that the shorts were not as well liked as the drama, and viewers found their messages unclear (50). In the Brazilian vasectomy campaign, however, the humorous ap-



**The "P"**

**Steps in the Communication Project Process**

Adapted from JHU/Population Communication Services (117)

# LESSONS FROM EXPERIENCE

### Strategy and Planning

**1.** Base messages on audience research, including pre-testing.

**2.** Thoroughly pre-test outputs, revise, and pre-test again.

**3.** Follow a planned process.

**4.** Promote only services and supplies that are available and ready.

**5.** Direct people to services or providers—familiar ones if possible.

**6.** Encourage scriptwriters and directors to build family planning themes and messages into ongoing shows.

**7.** Promote heavily to both the audience and the gatekeepers. Involve celebrities in the promotion as much as possible.

**8.** Look for corporate sponsors. They can share costs, provide or pay for airtime, and arrange for promotional events and materials.

### Content

**9.** Each product should have a single, clear message.

**10.** Make the messages specific. Direct messages work best, especially with hard-to-reach audiences such as young men.

**11.** Express the same theme in different ways to keep viewers interested.

**12.** Tell people what they can do now, such as "Visit your neighborhood family planning clinic" or "Call this number for answers to your questions."

**13.** Show it instead of telling it. One memorable image can take the place of much dialogue and may be remembered longer.

### Quality

**14.** To ensure high quality, use skilled and talented professionals.

**15.** Use sources—spokespersons, stars, actors—that the audience will trust and believe.

**16.** For broadcast productions to attract attention, make sure production quality meets or exceeds media standards.

### Quantity

**17.** Use multiple media. Combine TV, film, or video with print, radio, and interpersonal communication to multiply impact.

**18.** Plan for long-term, extensive distribution. Distribute in various forms—film, home videotape, and broadcast tape—to reach as many people as possible.

**19.** Work with the news media. They can provide free, positive coverage and publicity. Develop ongoing, friendly relationships with news personnel.

**20.** Broadcast the message as often as possible, when and where the intended audience will see it.

**21.** Keep up promotion to sustain the response.

### Entertainment and Education

**22.** Be original, dramatic, and moving. The audience should become emotionally involved with the characters and their situations.

**23.** Keep entertainment in the foreground and education in the background.

**24.** In serial dramas introduce characters and plot lines first and family planning messages later.

**25.** Develop strong characters to serve as role-models and to inspire the audience to action.

### Evaluation

**26.** Begin evaluation with project design. Set objectives that are SMART—**S**pecific, **M**easurable, **A**greed, **R**ealistic, and **T**ime-bound—at the start of the project.

**27.** Gather comparable information before, during, and after the project.

**28.** Evaluate the project in several different ways to cross-check findings.

proach clearly motivated many men, and humorous spots in Turkey were well-remembered (see pp. 12, 19). Humor usually works best when the audience is already familiar with the subject (105). It can ease tension and present topics that would otherwise be taboo. Fear also has mixed effects. While some level of fear is useful to stimulate audiences to change their behavior, too much fear can cause people to become fatalistic or simply to ignore messages (51, 74).

In a TV spot the message should attract attention and specifically address the concerns of the intended audience. The best messages are short and simple. A spot should not present more than one or two points. The information should be new to the intended audience, accurate, and relevant. Important information should go at the beginning or end of a spot or program and should be repeated elsewhere as often as possible.

The best messages tell the viewer very specifically what he or she can do. For example, the TV spots in the Philippines Multimedia Campaign for Young People showed people telephone numbers to call for advice (see p. 16). The TV spots shown with *In a Lighter Mood* in Nigeria told people where to get contraceptives (see p. 20). The Indonesian Blue Circle campaign tells people whom to see for family planning services (see p. 17). Giving all the information needed to act not only facilitates action but also reduces anxiety and increases motivation (27, 54).

**Choosing an appropriate source** for any message is crucial because the message is associated with the person who delivers it (14, 53). For example, women in the Dominican Republic still ask for the "Vickiana pill" because Vickiana was the singer seen in the TV commercial (see p. 13). In contrast, adolescents in Mexico discounted the song "Frena" (Stop) partly because they did not think that a male singer was a credible source for that message (69, 73) (see p. 11).

The audience must be able to identify with the source. A homologous source—one who is very similar in language, values, personality, and social characteristics to the intended audience but more experienced and knowledgeable on the subject—is usually best. Generally, the more homologous the source, the more likely that the audience will perceive the source as trustworthy and will heed the message (135). For example, the characters in the Indian soap opera *Hum Log* resembled members of the intended audience and so served as positive or negative role-models (16, 181) (see p. 15).

**The media selected** should, of course, be those most likely to reach the intended audience. Television, video, and film each has its own advantages and disadvantages (see pp. 5–8). The preliminary research on the media preferences and habits of the audience, conducted in Step 1, as well as the budget and goals of the project, help determine which medium or media to use.

Once basic messages, sources, and media are chosen, rough scripts can be developed. A professional scriptwriter, songwriter, or advertising agency should be hired to write the script. The script should reflect research findings about the intended audience and should address its concerns. At this point the family planning organization, media gatekeepers, and others should review the script and suggest changes. It is much easier to change the script at this point than during or after production.

## Step 3: Message Pre-Testing and Materials Production

With Step 3, actual production and testing of preliminary versions begins. At this point a work plan should be developed, with checkpoints for monitoring progress. This plan should cover materials development, pre-testing, production, editing after production, and final preparation of the product, a preliminary dissemination plan including a broadcast schedule or distribution plan, a schedule of promotional activities, and an evaluation schedule.

**Pre-testing** is a way of finding out from members of the intended audience how to improve preliminary versions of material. Pre-testing helps avoid costly errors by pinpointing problems before final production and distribution. Pre-testing should answer the following questions:

- Is the message understood? Is the language appropriate?
- Does the material hold the viewers' attention?
- Are the messages relevant to the intended audience?
- Are there enough but not too many messages?
- Is the source appropriate and believable?
- Does the audience like the spot, film, or video? Would they tell their friends about it?
- Does the spot, film, or video offend anyone? Could it be changed to reduce the offense without losing the message?
- What is wrong with the material? What can improve it?

Materials are revised after pre-testing and are tested at least once more before final production. Implementation and work schedules may have to be revised at this point.

TV, video, and film materials are pre-tested in a number of ways. Often, several methods are used to overcome the limitations of any one procedure. For example, focus-group discussions with 8 to 10 members of the intended audience can help define message concepts, create characters, and determine appropriate language (44). Then individuals may be shown storyboards or other rough materials and interviewed or asked to fill out questionnaires. (A storyboard is a series of pictures, either photographed or drawn, representing what will appear on the screen shot-by-shot. The words for each scene are written under each picture (30).) Finally, with television, video, and film, rough footage may be tested with larger groups of people just before final production (212). Pre-testing in groups is especially important where television or film viewing is a group activity, since the pretesting will mimic how the piece will actually be seen.

Messages and materials should be pre-tested with gatekeepers as well as members of the intended audience. Their approval or disapproval may determine how much the material is seen or, indeed, whether it will ever reach the audience. Pre-testing also introduces the gatekeepers to the project and is often a good time to solicit support (212).

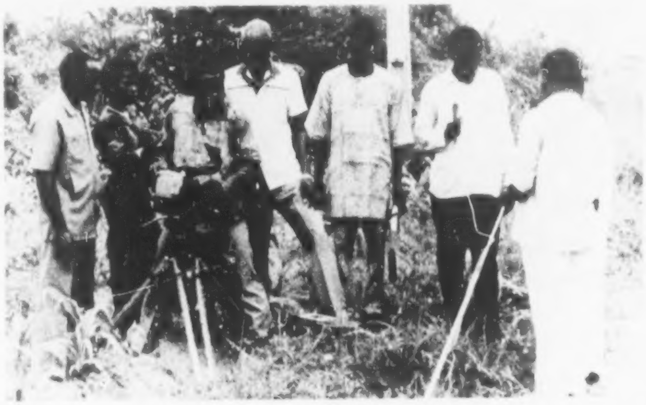
Who conducts the pre-testing? Trained interviewers and focus-group moderators should be used whenever possible. Sometimes a clinic or staff worker with some training in interpersonal communication or group interaction is used. University students also can be recruited to pre-test; the experience helps them develop their skills.

**The production phase** is usually the shortest but the most costly. Therefore every step should be planned well in advance of the actual shoot date. Actors, locations, props, and technical equipment all should be ready before production begins. Since reshooting is expensive and time-consuming, plenty of extra footage should be shot in case it is needed later. Final production and duplication of products for distribution should take place only after all changes have been made and approved.

## Step 4: Implementation and Monitoring

Implementation means turning the design into action. The materials must be ready and available for distribution, promotions ready to run, and family planning services prepared to respond. Questions to consider at this step include:

- Are the materials delivered?
- Have sufficient promotional and support materials (posters, brochures, and clinic record sheets, for example) been produced and distributed? Can more be produced and distributed quickly if needed?
- Are gatekeepers aware of the implementation schedule?
- Is the program staff prepared to respond to inquiries? Are services ready to meet the expected demand?
- Have all organizations involved (media, family planning organizations, and corporate sponsors) been contacted?



*Making an effective video or film requires carefully following a process of planning, research, design, pre-testing, production, distribution, and monitoring. Filming is only part of the process.*

- Are mechanisms in place to monitor progress, identify potential problems, and collect data for evaluation?

**The implementation period** should be as long as possible. Messages repeated over a long period are better remembered and more often acted on. Very few people change their behavior after hearing or seeing a message just once. Up to a point, the more familiar people become with a message, the more positive they feel about it. Too much exposure to the same message may reduce the positive response, however (14, 53). Thus different messages with the same theme are better than identical messages repeated over and over.

Communication projects may not actually influence behavior unless family planning programs are ready to respond to the demand created. If new clients go to clinics or stores and there are not enough workers and/or supplies, many may not return.

**Monitoring** is the process of tracking project implementation. It is important to make sure, for example, that television spots are broadcast when scheduled, especially if airtime is purchased. Monitoring determines whether the project is proceeding as planned and helps identify problems quickly.

Monitoring is also part of the evaluation process (see Step 5). For example, data on ticket sales, TV ratings, or video sales and rentals can help to determine how many people saw the production.

## *Step 5: Evaluation*

Evaluation should be designed to measure what changes occurred among the intended audience and how these changes compare with initial objectives. Ideally, evaluation can take three forms: often called **process**, **outcome**, and **impact evaluation** but also known by other names. Each looks at a different aspect of the project.

**Process evaluation** provides information about project implementation. It evaluates whether and how efficiently project activities took place. It is similar to monitoring, but retrospective. Process evaluation does not assess whether messages were understood and approved or if behavior changed. It answers the questions:

## Sources of Assistance for TV, Video, Film

Many organizations provide various forms of assistance to family planning and/or health-related activities using television, video, and/or film. This assistance ranges from technical and financial support to distribution of films and videos. The organizations listed here are among the major sources of assistance and information. Types of assistance are coded as follows:

$ = financial assistance
TA = technical assistance
IM = information and materials

**Academy for Educational Development (AED),** 1255 23rd Street NW, Washington, D.C. 20037, USA. $, TA, IM

**Asia Mass Communication Research and Information Center (AMIC),** 39 Newton Road, Singapore 1130, Republic of Singapore. TA, IM

**Association for Voluntary Surgical Contraception (AVSC),** 122 East 42nd Street, New York, New York 10168, USA. $, TA, IM

**Canadian International Development Agency (CIDA),** Population Sector, 200 Portage Avenue, Hull, Quebec K1A 0G4, Canada. $, TA

**Clearinghouse on Development Communication of the Institute for International Research,** 1815 North Ft. Myer Drive, Suite 600, Arlington, Virginia 22209, USA. IM

**Development through Self-Reliance, Inc. (DSR),** 9650 Santiago Road, Suite #10, Columbia, Maryland 21045, USA. TA, IM

**Ford Foundation,** 320 East 43rd Street, New York, New York 10017, USA. $

**Friedrich-Ebert-Stiftung (FES),** Godesberger Allee 149, 5300 Bonn 2, Federal Republic of Germany. $, TA

**The Futures Group (SOMARC and RAPID projects),** 1101 14th Street NW, Suite 300, Washington, D.C. 20005, USA. $, TA, IM

**International Development Research Center (IDRC),** P.O. Box 8500, Ottawa KIG 3H9, Canada. $, TA

**International Planned Parenthood Federation (IPPF),** Regent's College, Inner Circle, Regent's Park, London NW1 4NS, United Kingdom. $, TA, IM

**Japanese Organization for International Cooperation in Family Planning (JOICFP),** Hoken Kaikan Bekkan 11-1, Sadohara-cho, Ichigaya, Shinjuku-ku, Tokyo 162, Japan. $, TA, IM

**The Johns Hopkins Program for International Education in Reproductive Health (JHPIEGO Corp.),** 1615 Thames St., Baltimore, Maryland 21231, USA. $, TA, IM

**Johns Hopkins University/Population Communication Services (JHU/PCS),** Center for Communication Programs, 527 St. Paul Place, Baltimore, Maryland 21202, USA. $, TA, IM

**Martha Stuart Communications, Inc.,** 147 West 22 Street, New York, New York 10011, USA. TA, IM

**Media for Development Trust,** 135 Union Avenue, P.O. Box 6755, Harare, Zimbabwe. TA, IM

**Norwegian Agency for International Development (NORAD),** Boks 8142 Oslo Dep., Oslo 1, Norway. $, TA

**Overseas Development Administration (ODA),** Eland House, Stag Place, London SW1E 5DH, United Kingdom. $, TA

**The Pathfinder Fund,** 9 Galen Street, Suite 217, Watertown, Massachusetts 02172, USA. $, TA

**Program for Applied Technology in Health (PATH),** 4 Nickerson Street, Seattle, Washington 98109, USA and 1990 M St. NW, Suite 700, Washington, D.C. 20036, USA. TA, IM

**Redd Barna,** P. Boks 505 Sentrum, 0105 Oslo 1, Norway. $

**Swedish International Development Authority (SIDA),** Birger Jarlsgatan 61, S 105 25, Stockholm, Sweden. $, TA

**United Nations Children's Fund (UNICEF),** UNICEF Headquarters, UNICEF House, 3 UN Plaza, New York, New York 10017, USA. $, TA, IM

**United Nations Educational, Scientific and Cultural Organization (UNESCO),** P.O. Box 20 Grand Central Station, New York, New York 10017, USA. IM

**United Nations Population Fund (UNFPA),** 220 East 42nd Street, New York, New York 10017, USA. $, TA, IM

**United States Agency for International Development (US AID),** Washington, D.C. 20523-1819, USA, or contact the local USAID mission. Assistance from the US AID Office of Population is provided through a number of cooperating agencies including JHU/PCS, JHPIEGO, AED, AVSC, The Futures Group, and the Pathfinder Fund. $, TA, IM

- Were the materials produced and distributed? In what quantity?
- When and how often was the show, film, video, or television programming shown?
- How many in the intended audience saw it?

**Outcome evaluation** answers the questions:

- Was the material appropriate, understood, and liked by the audience?
- What was the effect of the project on the target audience? Was there any change in knowledge, attitudes, or behavior because of the project?

Usually, audience knowledge, attitudes, and behavior before the project are compared with those afterwards. Alternatively or preferably in addition, the audience may be compared with a similar group that did not see the programming.

**Impact evaluation** measures the long-term health or demographic effects of the program. For family planning programs a major intended impact might be longer birth spacing or lower birthrates. Since such changes usually occur gradually and are subject to many influences besides communication programs, impact is rarely measured except in very long-term programs (139, 212).

Different information is needed to answer different evaluation questions. But any rigorous evaluation requires at least data establishing conditions before the intervention and comparable data on conditions during and after. Depending on the size and type of the evaluation, these data can come from these sources:

- Focus-group discussions;
- In-depth interviews, surveys, and written questionnaires;
- Contraceptive sales, clinic service statistics, and distribution trends;
- Viewer feedback—for example, letters, calls to hot lines, and requests for information;
- Content analysis of scripts, songs, and press coverage;
- Broadcast monitoring; and
- Television ratings, ticket sales, video sales or rentals, airtime, and number of showings.

Once the evaluation of a project is completed, the results should be shared. The lessons learned may be valuable to someone else planning a similar project. The evaluation report also may justify the program with funding institutions and gatekeepers and increase support for future family planning communication projects (60).

*In a video drama to be shown in rural Nigeria, renowned comedian Baba Sala plays a man whose wife refuses to sleep with him because he will not use family planning. When he pursues her, she takes refuge in the king's palace, where the guard stops him.*

## Challenges of Evaluating Mass-Media Communication

Evaluating the effects of mass-media projects is especially difficult. Among the problems that complicate these evaluations are:

- **No comparison groups.** People receive information about family planning—both pro and con—from many sources besides a mass-media project. In evaluation, the best way to take account of this is to compare those who were exposed to the project with those who were not—before, during, and after exposure. But by definition the mass media reach much of the population. It may be difficult to find unexposed members of the intended audience. Even those who did not see the programming may have talked about family planning with—and been influenced by—those who did see it. Many evaluations make do with pre- and post-test comparisons, which cannot easily exclude other influences. Also, these 2-point comparisons do not take into account pre-existing trends. Thus it is difficult to determine how much change is due to the project and how much would have occurred without it.
- **What to measure?** The ultimate goals of a family planning program, such as decreasing birthrates or maternal mortality rates, take too long and are influenced by too many other factors to be clearly attributed to mass-media communication. Most evaluations of communication campaigns look instead at intermediate steps such as requests for information, clinic attendance, or contraceptive use. Thus evaluation of communication projects depends on a good understanding of the steps that people take in changing their behavior.
- **Difficult to evaluate quality.** The impact of a communication effort, no matter how it is defined, often depends on the quality of the production. While technical quality can sometimes be gauged, the quality that comes from talent, creative genius, promotional finesse, and even skilled management cannot be objectively defined except in terms of its own success. If a project has little impact, is that due to poor quality or to other factors? And, addressing the larger question of whether the mass media can influence behavior, how can evaluators judge whether some behavior is resistant to the influence of any mass media or, alternatively, whether a specific mass-media communication effort was inadequate?

**Evaluation is improving**. Evaluation of communication interventions is growing more sophisticated. Increasingly, project objectives are being stated in terms that will be easy to measure, such as clinic attendance or calls to a hot line. Multiple evaluation measures are being used. For example, JHU/PCS projects often use several different research and data collection techniques in their research designs and evaluations. Known as the Media Impact Research System (MIRS), these measures include baseline and follow-up surveys with probability samples, time series analysis of clinic records before, during, and after the intervention, exit interviews with clinic clients, and structured interviews with small samples of clients, providers, and community leaders (115, 116). Management information systems for service providers are being made more sensitive to changes in promotion strategies as well.

**Challenge for the 1990s.** The goals of family planning communication, regardless of the media, can be described as *making family planning a household word, a community norm, and an informed individual choice* (110). Family planning communication efforts began, in the 1960s and 1970s, focusing chiefly on **creating awareness** of family planning—in other words, making family planning a household word. In the 1980s these efforts expanded and a new task was added: **generating approval** of family planning so that it is seen as appropriate, socially endorsed behavior—in other words, a community norm. In the 1990s family planning communication is facing the ultimate challenge: **influencing people's behavior**—that is, making family planning an informed individual choice. The roles that television, video, and film can play in meeting this new challenge are just now emerging.

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